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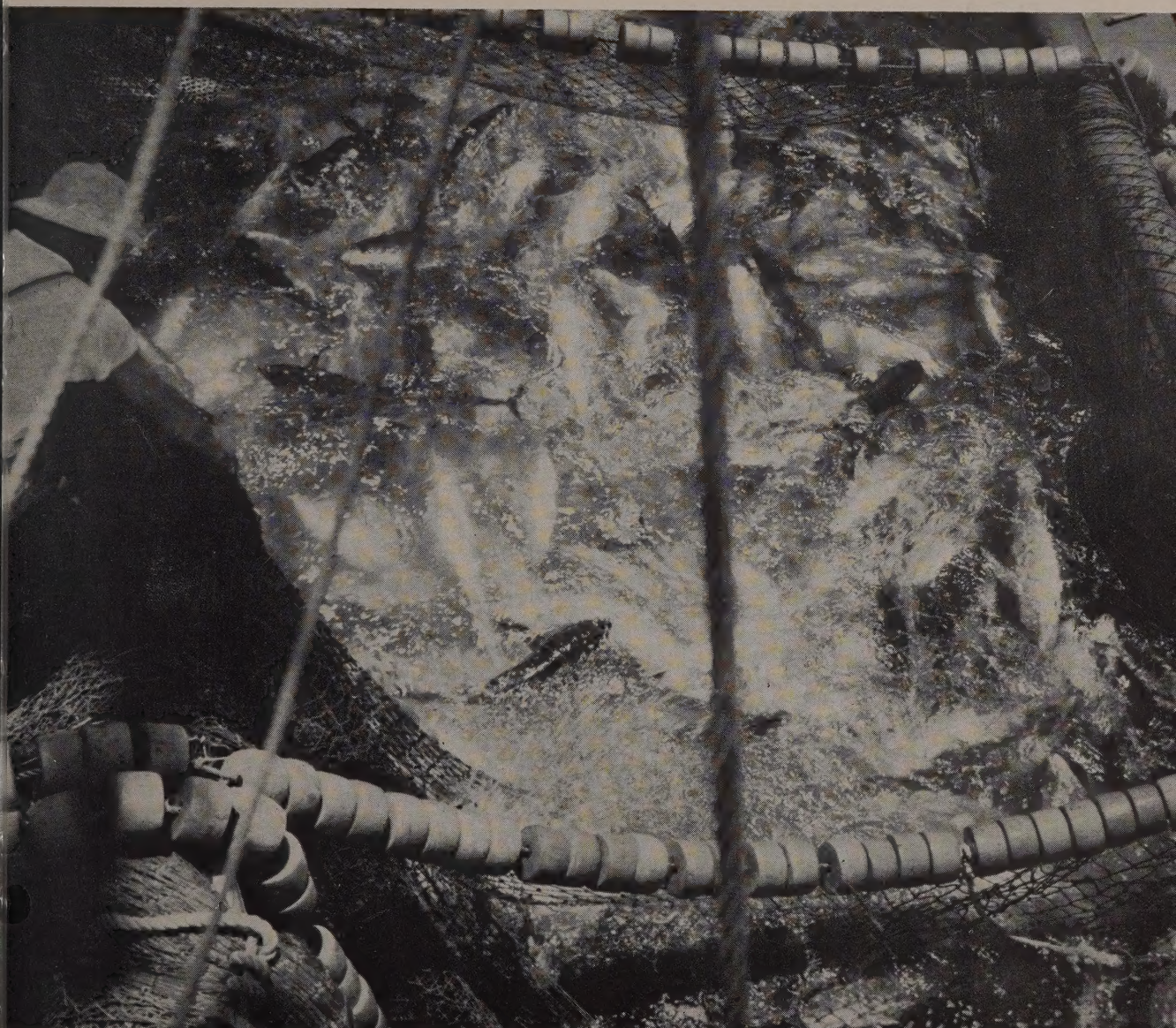

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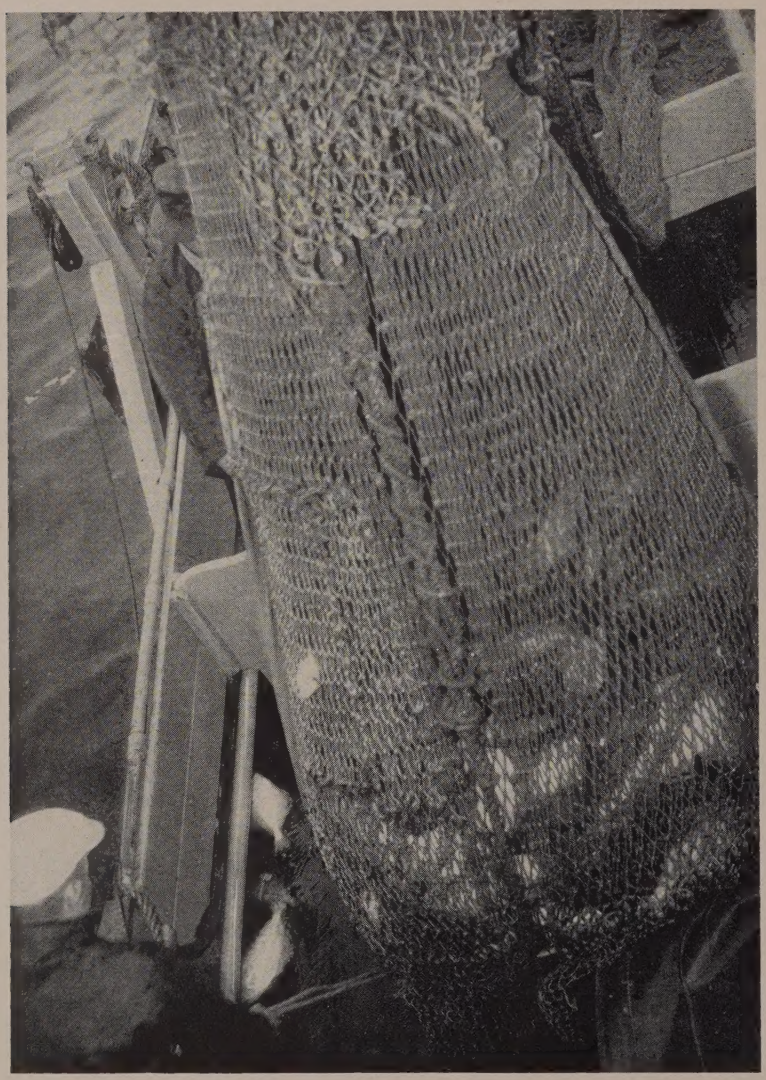

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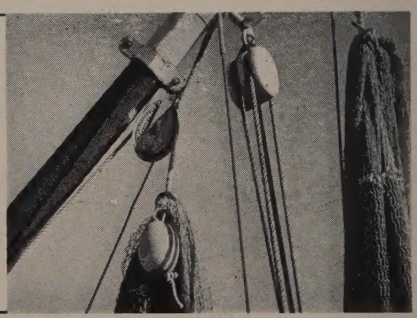

PACIFIC FISHERMAN

Our Fifty-Eighth Year— November, 1960
Vol. 58 No. 12

Table of Contents

Research Trawler Design	10	"Mercator", King Crab Ship	19
APA Model Fish House	12	"St. Matthews" Conversion	23
Pacific Pinks in Norway	15	Chile's Fishery Potential	31

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The Cover Picture—Tuna in the Bunt

• Magnificent tuna seining picture on the cover of this issue of *Pacific Fisherman* is the work of Richard McNeely, fishing gear specialist of the U.S. Bureau of Commercial Fisheries at its Exploratory Fishing and Gear Research Base, Seattle.

The picture was taken aboard the converted tuna seiner *Determined,* Capt. John J. Cvytanich, fishing out of San Pedro. The particular catch pictured here consisted of 45 tons of Yellowfin.

Determined as a clipper was named *Courageous,* and is rated as one of the high boats of the American tuna fleet.

Mr. McNeely returned recently to Seattle after spending more than two months studying the new tuna seining industry, its methods, equipment, progress and problems.

Freezership Tax Case Goes to Supreme Court

Right of Alaska to tax freezerships operating outside territorial waters, but receiving fish from vessels catching them in waters under state jurisdiction, will be determined by the United States Supreme Court, which in October accepted appeal by the state from an adverse decision of the Appeals court, which last spring held the state's tax was an invasion of interstate commerce.

The Court of Appeals decision produced a resurgence of freezership operations on Bristol Bay in 1960. Normally, a decision of the Supreme Court would be expected in advance of the 1961 operating season.

B. C. Union Rejects Revised Herring Offer

A move by British Columbia operators to encourage resumption of herring fishing came to naught in mid-October when the fishermen rejected a revised two-year agreement offered by the Fisheries Association.

The original offer by the processors, made a year ago, was to pay $13 a ton, but this was subsequently withdrawn because of the sharp decline in the market for herring products. Suggestions that the fishermen might agree to a reduced price so as to get the herring fishery active again were turned down.

The latest company bid was $8.32 a ton, and organized fishermen and tendermen decided that the 35% reduction was excessive. The operators in making their offer stipulated that herring tendermen would be eliminated altogether.

The $13 a ton price originally agreed upon was to expire October, 1961. The herring fishery in B. C. has been idle all year.

Suggestions by the fishermen that the Canadian government should subsidize the industry to some extent have not been accepted.

Calpak to Build Tuna Plant in Puerto Rico

Tuna with the famous "Del Monte" label will be produced in the Caribbean in a new cannery to be built by California Packing Corporation interests at Mayaguez, Puerto Rico, according to an announcement last month by Teodoro Moscoso, head of the Puerto Rican Economic Development Administration, and Roy G. Lucks, president, California Packing Corporation, San Francisco, owner of the "Del Monte" brand.

A 10-acre waterfront site will be purchased and a new and modern cannery constructed which is planned to go into operation in approximately two years. With a floor area of 100,-100 sq. ft., and a potential employment of 350 persons on a single shift operation, the new plant will be one of the most modern and largest tuna canneries in the world.

Extra strength of Tempaloy Shafting meets demands of extra power in gillnetter

Fishing boats are becoming modern seagoing "instruments"—with ever increasing speed and power. And more and more naval architects and boatbuilders are taking advantage of the high strength of Tempaloy® propeller shafting to transmit this extra power dependably and economically. A recent example is the modern gillnetter shown at the right. Her owner, Walter W. Sanford, writes:

"With today's higher power engines, such as the *Sherie's* Sea-V Chrysler of 177 hp, stronger shafts are desirable to handle the extra power. For this reason, a Tempaloy Shaft of 1½" diameter was installed in my new boat, *Sherie*. Since Tempaloy is made by Anaconda American Brass Company, I have the fullest confidence in this newer and stronger shafting."

Owners of existing boats, too, are turning to Tempaloy when they repower with bigger engines. Tempaloy usually provides the needed extra strength with no increase in shaft diameter—saving costly alteration of bearings, stuffing box, and housing assemblies.

Tempaloy Shafting and its companion Tobin Bronze® are available through leading marine supply distributors. For detailed information see your distributor, or write: Anaconda American Brass Co., Ansonia Div., Ansonia, Conn. District Sales Offices: Los Angeles, Calif., at 14900 Garfield Ave., Paramount—Oakland 12, Calif., at 360 22nd St.—Seattle 1, Wash., at 1311 Tower Bldg. 6094 PF

Skipper-owner Walter W. Sanford puts his new plastic fiberglass gillnetter *Sherie* through the paces on Puget Sound. The 32-foot fishing boat was designed by Edwin Monk, Seattle naval architect, and built by Ron Rawson, Inc., Seattle. A 1½" Tempaloy shaft transmits 177 hp to a three-blade, 21" x 16" propeller.

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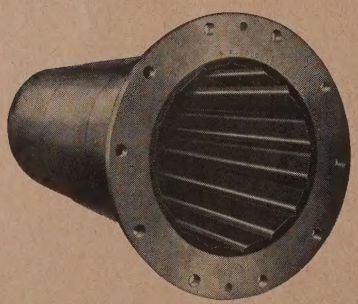

THREE NEW SEINERS

"Sophia K", illustrated here, is the first of three new combination fishing boats, 42', 165-hp, for Kadiak Fisheries. She uses Goodrich Cutless bearings, and her two sisters, coming soon from Grandy Boat Co., Seattle, will use them, too.

CUTLESS BEARINGS IMPROVE THE PERFORMANCE OF ANY VESSEL!

If you fish for a living you know the importance of dependable propeller shaft bearings. The kind that gives years of trouble-free, QUIET operation. The kind that saves shafts and keeps boat out of drydock. That kind is CUTLESS—the soft rubber, water lubricated bearing —the bearing fishermen depend on to keep them fishing.

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PROPELLER SHAFT

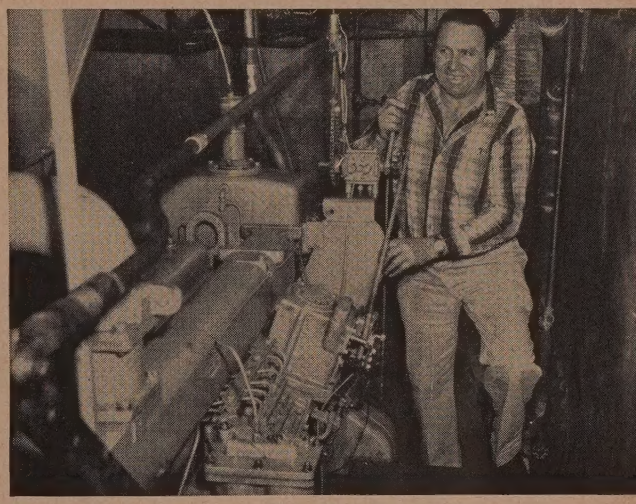
marine diesels BY CATERPILLAR

EARNING POWER RESTORED WITH NEW CAT ENGINE

When the new D353 Caterpillar Marine Diesel was installed on the *New Hope*, an 82-foot fishing vessel out of Astoria, Oregon, a full knot was added to her speed. The present 10-knot speed is average for long runs, say from Bellingham, Washington, to Astoria. "Fuel consumption is low," says owner George Moskovita. "And my Caterpillar Dealer provides wonderful service—you get that with a Cat engine."

The *New Hope* was built in 1940, and the new D353 was installed in May, 1959, along with a chilled sea water system to keep the catch fresh from fishing grounds to cannery. With modern equipment in a seaworthy boat, the *New Hope's* earning power was restored. While the *New Hope* engages in drag fishing or shrimping throughout the year, a summer charter in the Alaskan salmon fisheries is a desirable addition to its annual income. The modern power of the D353 helped Skipper Moskovita get this charter from Pacific American Fisheries for the 1959 salmon season.

Caterpillar Marine Engines can benefit your fishing operations in many ways: adding speed to get more time for fishing; lowering costs to bring up your profits; and give you the assurance of dependability at sea. Your nearby Cat Dealer can recommend the correct engine or Caterpillar Electric Set for your boat. Engines are available from 50 HP to 600 HP (continuous ratings) and Electric Sets up to 350 KW capacity in 60 cycle operation, AC or DC, single or three phase. You save money with Caterpillar Marine Engines . . . and make a better living, too.



George Moskovita, owner of the *New Hope*, is from Astoria, Oregon. He has been fishing since 1929. The D353 is his third Caterpillar Marine Engine.

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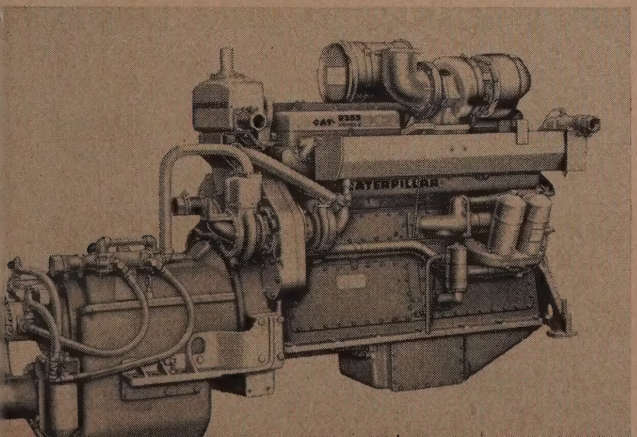
The 300 HP D353 Marine Engine installed in the *New Hope* provides full power and speed in either direction. The Cat Marine gear is designed specifically for use with this engine.



The 82-foot *New Hope's* Cat D353 has a Cat Twin Disc 4:1 reduction gear and swings a three-bladed 66″ by 51½″ wheel to give a cruising speed of 10 knots at 1200 RPM.

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If you're on the Pacific Coast, there's a St. Regis plant near you that specializes in corrugated shipping containers for the fishing industry.

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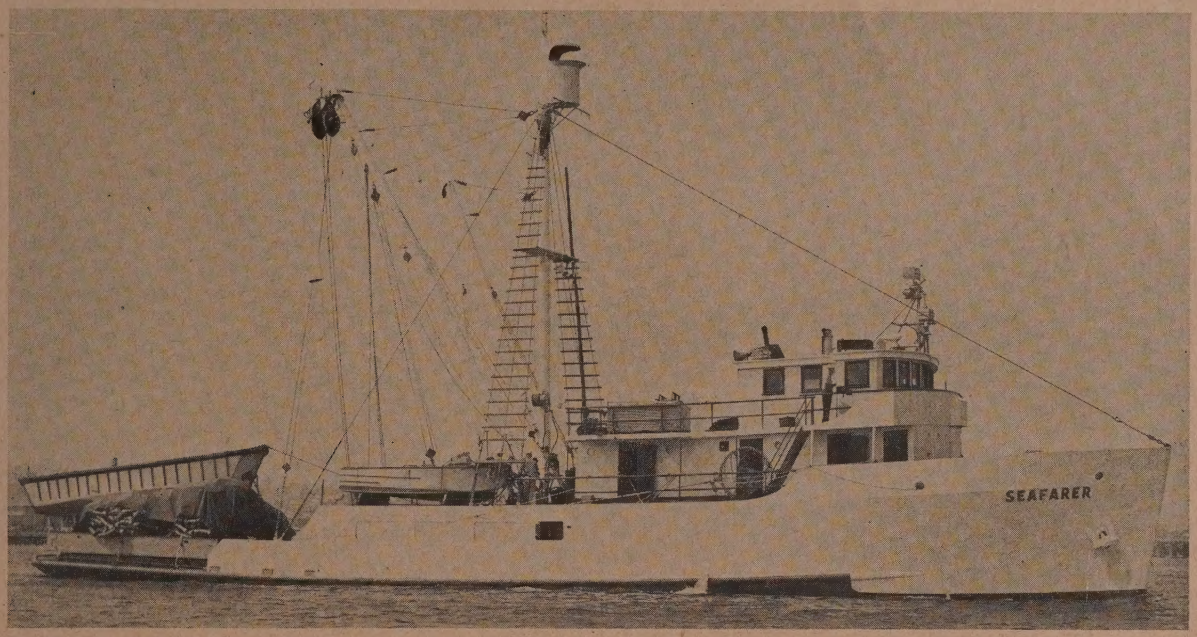


SEAFARER AND COMMANDER are among the last of the 1960 conversions of tuna clippers into seiners. They are sister ships and were converted at Harbor Boat & Yacht Co., San Diego, Calif. Owned by Alvin Davies of Tacoma, Wash., the 126' ships were built by Birchfield Boiler & Shipbuilding Co., Tacoma, have capacity for around 280 tons of fish. In conversion, the modified cruiser sterns were sponsoned out to conventional seiner form. The sponsons can be used as fuel tanks. The design for the conversions was drawn by Arthur de Fever, well-known naval architect of San Diego. All-nylon nets were made by the Momoi Co. Elmer Nordstrom, operations manager, was the owner's man in the shipyard during the conversion.

Are Raw Tuna Prices Stabilizing?

• • •

Perhaps — At the Cost of Delay

• The Southern California tuna situation remained in an unsettled state as this issue of *Pacific Fisherman* went to press, but there seemed to be some signs of its shaking down into a pattern. These are only signs, however, and may be belied by later developments.

For the benefit of those who came in late, it should be recapitulated that last August one of the major California canners announced a new, complex price structure that the fishermen generally felt meant lower prices for fish. The superseded $250-$210 price structure was, briefly, $250 a ton for Yellowfin tuna and $210 a ton for Skipjack, with Bluefin in between at $240 a ton.

The revised price of fish might have been foreseen, for the canners were oversupplied by the excellent fishing enjoyed since the first of the year. However, the boat-owners immediately and unanimously rejected the new prices, and unloading came to a complete stop for some weeks. After the back-log was somewhat reduced, the canneries resumed buying, at the old $250-$210 prices, but unloading was very slow. As one canner's spokesman put it: *"Prices are being held but at the cost of slow unloading."*

The new prices announced by major canners are roughly parallel, but not exactly the same. Price breaks on one of the lists come for Yellowfin at 7½-to-11 lbs., 11-to-30, 30 and over. For Bluefin they are the same, but there is an additional 30-60 class and a 60-and-over class. Big Bluefin are not desirable fish because of color characteristics, so the prices for the jumbos are lower than those for the merely colossal fish. Skipjack are classified as 4-to-7, 7-to-10, and 10

and over.

A New Boat Class

● The always complicated tuna situation is now a bit more complex by the addition of a new class of boat to the fleet. Formerly, the fleet was composed of two kinds of vessels: Clippers (bait boats) and seiners; now we have clippers, converted seiners (larger vessels) and regular seiners. The converted seiners are a separate class in that they fish farther afield than the regular, smaller net boats; and because many have closer ties with the canneries than the independent regular seiners.

In the present price controversy, boats have been slow to unload and slow to go out fishing after unloading. However, the converted seiners have been departing, mostly from San Deigo, to fish under the letter guarantees, while the regular seiners are largely declining to accept the new prices. According to official records, only two seiners (one a conversion) have cleared San Pedro since late August, but a total of 73 converted seiners and clippers have gone out from San Diego.

It is also true that the weather has made skippers reluctant to go fishing without a heavy price incentive. Reports from the fishing grounds indicate that fishing is not too good in late October, a season perennially notorious for dirty weather.

No Share Agreement

● The fishermen's unions, in the present unrest naturally side with the boat owners in their attempts to keep up the price of fish, since their shares of the catch returns are higher when based on a higher price per ton. So far, the position of the unions is that prices should be higher, but whether they are higher or not, the fishermen are demanding shares based on prices of $250-$210 per ton.

The Fishermen's Co-Operative Association of San Pedro, of which most regular seiner skippers are members, has not officially accepted the canners' letter prices and still sticks to its position on the $250-$210 line.

The past months have been times to try men's souls, as the saying goes. Throughout there has been an extraordinary amount of negotiation, not only between canners and boat-owners, but among groups of boat owners. At times, tempers have risen to the shouting point and past, and nerves have been stretched as tight as guitar-strings. It is not surprising that at the end of weeks of negotiations, one labor leader found it advisable to go on a hunting trip in the Rockies, while a boat-owners' spokesman took an extended rest on doctor's orders.

● Two clippers brought in outstanding fares of Albacore as the season came to a close. The *United States* was said to have landed 265 tons caught off Northern California and Oregon, and the *Lois Seaver,* a new steel clipper fishing for Westgate in San Diego, landed 250 tons of northern Longfins.

Earl N. Clagett, manager of the American Tunaboat Association of San Diego, resigned late in October, it was officially announced by Edward P. Silva, vice-president of the southern boat-owners' group. Not officially announced but generally accepted as true was the appointment of Augie Felando Jr. of San Pedro as successor to Mr. Clagett.

Chilko Spawning Draws Observers from Industry

● Heavy spawning of the Chilko race of Fraser River Sockeye drew a score or more of observers from the British Columbia and Puget Sound salmon industry to the remote fastnesses of the Canadian coastal mountains where some 500,000 Sockeye were spawning at the outlet of Chilko Lake.

Among the interested industry observers who inspected the spawning through the cooperation of Loyd A. Royal, director of the International Pacific Salmon Fisheries Commission and his staff were:

Jay Hendrickson and Frank Hoagland, vice presidents, Verne Larson, O. D. Howell and John R. Gilbert, all of the Columbia River Packers Association; Paul Glenovich, Pete Kink, and Vince Kink, Bellingham pure seine vessel owners; Don Franett, Nakat Packing Corporation; Frank Grainger, reef net owner and tenderman;

Ross Nicholson, British Columbia Packers, Ltd.; Jack O'Connor and Brian Fraser, Nelson Bros. Fisheries; Bud Myers, Blaine Myers & Co.; Nels Gordon, Canadian Fishing Co.

In addition, four members of the Industry Advisory Committee to the Salmon Commission also visited the Chilko spawning grounds. They were: John Brown, U. S. reef nets; Joe Erisman, U. S. Gillnets; Peter Jenewein, Canadian gillnets; H. Stavenes, Canadian purse seine crewmen.

Commissioners W. R. Hourston and A. J. Whitmore also inspected the spawning on the ground.

Taken Sharply to Task, PF Re-affirms Praise of ADF

● *Pacific Fisherman* was taken rather sharply to task a few weeks back in a letter from an employe of the Bureau of Commercial Fisheries, formerly stationed in Alaska, who challenged the credit we gave the Alaska Department of Fish and Game in our August issue for its administration of the Bristol Bay salmon run of 1960.

He presses us further with the query "Don't you think our people would have done about the same?"

●

To this letter we have replied in part in these words:

"So far as the credit we gave the Alaska Department of Fisheries is concerned: we were on Bristol Bay throughout the great run of 1960 and observed the operations of the ADF very closely indeed. In our honest opinion, they did a superb job. We tried to give them credit for so doing, and we know of no one who had an opportunity to observe their operations who does not share our view.

"Now you ask if we do not think 'our people'—meaning the Bureau of Commercial Fisheries — 'would have done about the same.'

We can report that the unanimous opinion of the industry at all levels from the largest packer to the lowliest setnetter was that the ADF handled the situation much better than had the federal agency in previous years; and very, very much better than had the Bureau of Commercial Fisheries during the Nushagak run of 1959.

"As we examine the situation we think the Alaska Department of Fisheries in 1960 was not, as you put it, 'lucky' in all areas. In Southeast Alaska the salmon were as scarce as they were abundant on Bristol Bay. While some few men in the fisheries of Southeast Alaska, where they suffered crippling losses, complain that the ADF did not permit more fishing, the great majority of those with whom we have talked believe that the Alaska department handled the Southeast Alaska situation courageously and well in 1960, and with the future of the resource as the primary objective."

Rietze Named Alaska BCF Regional Director

Harry L. Rietze in October officially was named Alaska regional director for the U. S. Bureau of Commercial Fisheries. He succeeds John T. Gharrett, who was transferred some time ago to Gloucester, Mass., where he is North Atlantic regional director for BCF. Mr. Rietze has been Alaska acting director since Mr. Gharrett's transfer.

Mr. Rietze joined the Bureau in Alaska in 1958. Prior to that time he was employed with the Oregon State Fish Commission and was in charge of Columbia River Investigations. In 1958, Mr. Rietze was appointed assistant regional director for the Bureau of Commercial Fisheries' Alaska Region and he has served in this capacity since that time.

James Eckman Retires

James S. Eckman, former president of The Canadian Fishing Co., has resigned his chairmanship of the Greater Vancouver Metropolitan Industrial Commission owing to ill health.

Mr. Eckman retired from the fishing company, which he had served for many years, because of a compulsory retirement plan which he himself had originated; but he was eager to keep busy and launched the industrial commission nine years ago.

Moderate Fishing and Immoderate Prices

● Moderate fishing and immoderate prices featured the 1960 fall Chum salmon season.

Increase in the canned pack in British Columbia, Alaska and Puget Sound was nominal. The clamoring buyers for freezing, and the prices they were quoting, captured most of the fish from the canners.

Best bulge of production to press-time was the Chum fishing on Johnstone Strait, where the fish are of first class character, readily qualifying for "Silver Brights" in the Canadian trade. Such salmon were said to have commanded buying prices of 45¢ per lb., Canadian, dressed head-on.

Canadian Chums for canning in American plants, generally at Anacortes, were said to have been contracted for 23¢ Canadian for round fish, fob. buying point in Canada. Transportation, plus a half-cent duty, brings the cost very, very close to 25¢ per lb., which produces a *fish cost* of between $18 and $19 per case of talls.

● While several selected Alaska Chum salmon bays continued to be open to fishing on occasion well into October, the fall production up there was light and generally disappointing.

Puget Sound, closed tight to fishing until October 17 to permit escapement to spawning of as much as possible of the dangerously low run of Silvers, failed to produce any substantial catch on Chums on the opening; and was disappointing to press-time for this issue.

There was still a possibility of some fair production but the outlook frankly was not bright.

● Fall fish freezing demand is keener and prices higher than at any time in memory.

Basically the reason is scarcity. Silver fishing all along the coast ranked as the lowest on record. There may have been seasons when, in one area or another, the catch was poorer; but in 1960 there were *no* bright spots in Silver fishing, and most areas reported record lows.

It all adds up to a dismal picture for the packer of Silvers, and his customers. Nor is there any alternative or substitute to which they can turn. Small Kings are few, and priced with the diamonds. Chums are commanding prices as high as large red Kings for mild curing have received in many past years.

● Part of the frozen salmon buying interest undoubtedly arises from the freeing of frozen salmon purchasing from exchange control in Britain, France and other European countries. It is particularly worthy of note that they have manifest not a little interest in bright Falls, or "Silver Brights", as they are called in Canada.

In coat and cooked color—although not in fatness and perhaps not in flavor—they have some resemblance to Europe's own Atlantic salmon.

Canada Nearing Decision On 12-Mile Fishing Limit

● Reports from Ottawa indicate that the Canadian government, disappointed by rejection of its law-of-the-sea proposals at Geneva last year, will soon reach a decision as to whether to act unilaterally and declare a 12-mile fishing limit off the nation's sea coasts.

Announcement by Norway early in October that it intends to extend its fishing limits from four to 12 next year is said to have spurred Canada to revive the issue after it appeared to have been rejected for an indefinite period at last April's international conference—by a single vote.

The present three-mile limit has been contentious in Canada for several years, especially on the Atlantic coast, where some Canadian trawlers have to remain outside a 12-mile limit owing to conservation measures while foreign trawlers frequently operate up to the three-mile limit.

At the Geneva meeting, Canada and the U. S. proposed a six-mile territorial limit, with countries to have exclusive fishing rights for six more miles beyond their territorial waters after 1970. It was known as the "six-plus-six" plan, and it failed to get sufficient support to become law.

Canada's External Affairs Minister Howard Green, who lives in Vancouver, said after the Geneva conference that it would be a long time before another attempt could be made to amend the law of the sea on a world-wide basis.

But a Canadian Press dispatch from Ottawa states: "Indications are that Canada, like Norway, can't wait that long, even though declaration of a 12-mile limit probably would produce a first-class ruckus, especially with the U. S."

California's Sardine Resource Again Giving Serious Concern

● California's sardine resource is giving serious concern again, to the fishermen and canners, and to the California Marine Research Committee which coordinates the sardine investigations.

At presstime the season's total of sardines landed in California was only 17,785 tons, of which 13,813 had been delivered at Terminal Island.

On the surface, this compared more than favorably with 12,434 tons taken to even date in 1959—except that in 1959 fishing did not begin until Oct. 1.

Moreover, in 1958, one of the really favorable recent years, the catch to even date was 66,053 tons.

Running through October the nightly catch ran anywhere from 50 to 738 tons, and usually was not much above 100. Time was when California landed 100 times 100 tons in a single night—*many* nights.

● The Marine Research in October held a formal meeting and took a close look at the sardine research program being carried out by the California Co-Operative Ocean Fisheries Investigations.

The 40 other interested people were representatives of the canners, vessel-owners, labor unions and fishermen.

The assembled group listened to an explanation of the CalCOFI program given by Garth I. Murphy of La Jolla, co-ordinator of the committee, and engaged in some rather lively discussion on some points of the program.

Committee members present were Arthur Mendonca of F. E. Booth Co., San Francisco; John Hawk of the Seafarers' International Union, San Francisco; Max Gorby of California Marine Curing & Packing Co., Terminal Island; Julian Burnette, public representative and chairman; Harold Carey of Van Camp Sea Food Co., Long Beach; Lee F. Payne, publisher of the Temple City, Calif., Times; and Dr. W. B. Chapman of the Resources Committee, San Diego. The meeting was held in the conference room of the Fishermen's Co-Operative Association, San Pedro.

Sardines the Target

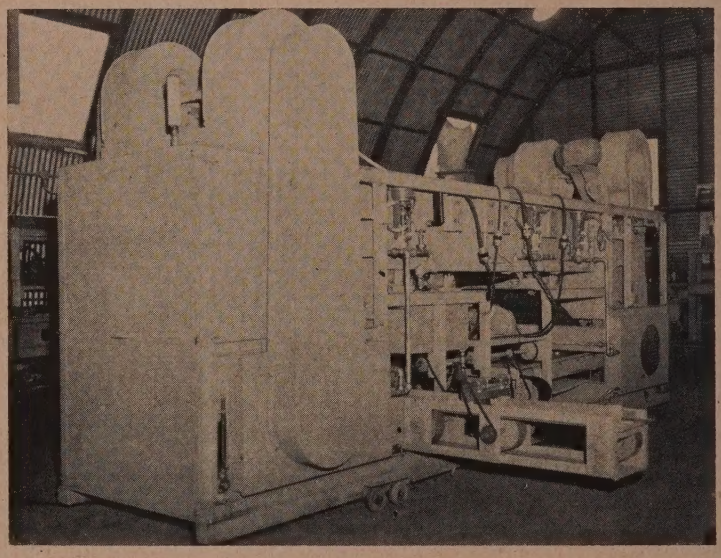
● The California sardine is the principal object of the CalCOFI research program, as explained by Mr. Murphy. The end purpose of all the research is to make it possible for fishermen to catch more sardines with less fishing effort.

In recent years, the work of the CalCOFI scientists has been expanded by California law to include not only the sardines but their companions the mackerel and squid.

For years the CalCOFI scientists have been gathering information on such points as: How many sardines are there in California waters, and how much does the population vary? Are sardines one single species unit, or are there separate sub-units? At what age do most sardines die, and at what age should they be caught, so as to get them at the best age for canning, yet not destroy the fishery by catching sardines at the wrong age for spawning? What is the nature of the California ocean current, home of the sardine? How do water and food conditions affect the number and catchability of sardines. How do weather conditions above the surface influence ocean conditions?

It was explained at the meeting that a great mass of material has been gathered by the researchers, and that now the time has come when much of it should be checked over, conclusions drawn, and the information made available to fishermen for practical use in catching sardines.

Compact Pre-Cooker for Sardines



● A new type of pre-cooker for rectangular and oval cans, that will eliminate a great deal of hand labor has been developed by R. B. Bentley, Universal Canning Machinery Company, Pacific Grove, Calif., for S. A. International Machinery Corporation of Belgium and the F. M. C. International of San Jose, Calif.

Fish are packed into the cans raw and conveyed to the feed end of the pre-cooker. There they are inverted around a wheel and placed upside down on a stainless steel flat top belt, which carries them through the exhaust box section where they are self-draining while cooking. They are again inverted around a wheel to a right-side up position and then move to the saucer and seamer.

Mr. Bentley spent four months last year for the I. M. C. Corporation visiting fish canneries in Northern Europe to study their present operations and to see if he could develop mechanized equipment replacing hand labor.

This pre-cooker is his first development of a long program and application for patents have been applied for.

Both European and Maine fish canners are interested in this machine.

OLD TIMERS NIGHT SAMPLES—Northwest Fisheries Association honored these among other antiques of the fish business October 12. In the top row, from the left, **Jack Kasten,** Whiz; **George Haecker,** Booth; **W. C. Eardley,** master of ceremonies; **W. J. "Billy" Maddock,** the senior deacon.

Harold Maddock, Sebastian, is at the left in the middle row; then **W. B. "Brad" Hall,** Booth; **Chester Swenson,** mild cure expert; **Leif Eriksen,** Northern Products.

Steve Chase, association president, is at the left of the bottom row; then **Charles R. Pollock,** secretary; **Howard Miller,** Whiz-Eardley; **Jack Johnson,** New England; and **Milo Moore,** Washington director of fisheries.

N. W. Fisheries Association Honor "Old Timers" Headed By William J. Maddock

● With William J. "Billy" Maddock as the ranking guest - of - honor, the Northwest Fisheries Association devoted its October 12 meeting to the "old timers" of the Pacific Northwest fish trade. So fully was the meeting concerned with the oldsters that Stephen Chase, president of the association, newly returned from extended travels in the U.S.S.R., was forced to defer a report on his experiences.

Faced with the necessity of determining the qualifications of "old timer" in the fish business, the association had established 40 years of service as the criteria of antiquity.

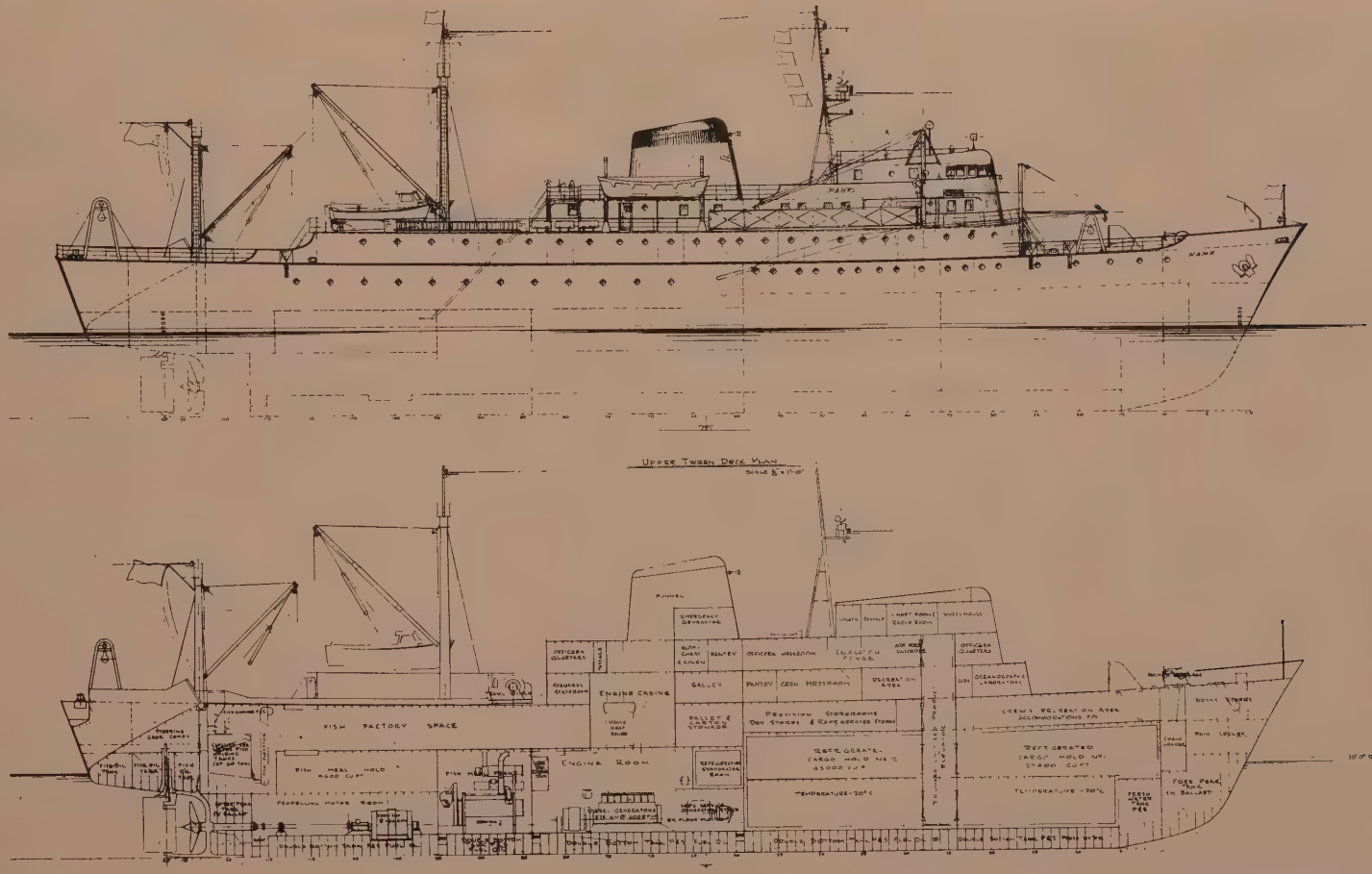
Beside *Billy Maddock,* who confessed to 57 years in the fish business in Seattle alone, plus an unrecorded number in Boston, the qualifying "old timers" present at the meeting included:

Jack Caston, Whiz Fish Products Co., the association's first president; *Charles R. Pollock,* its first and only secretary; *George J. Haecker,* Booth Fisheries Corporation; *William C. Eardley* and *Howard Miller,* Whiz-Eardley Fisheries; *Harold Maddock,* Sebastian-Stuart Fish Co.; *Jack Johnson* and *Harry R. Beard,* New England Fish Co.; *Milo Moore,* Washington Director of Fisheries; *Harvey Nordquist,* San Juan Fishing & Packing Co.; *Myer Bornstein,* Bornstein Seafoods, Inc.; *Albert Alhadeff,* Pacific Fish Co.; *Chester Svendsen,* mild cure re-packer; *Bert Johnston,* manager, Fishermen's Cooperative Association; *Mike Goodman,* Whiz Fish Products Co.; and *DeWitt Gilbert,* editor of *Pacific Fisherman.*

Among old timers who were unable to attend were noted: *Sam Calvo,* Waterfront Fish & Oyster Co.; *Harald Synnestvedt,* New England Fish Co.; *C. J. Sebastian,* Sebastian-Stuart Fish Co.; *Lawrence Calvert,* San Juan Fish & Packing Co.; *William S. Jensen,* Washington Fish & Oyster Co.

● Northwest Fisheries Association, under the chairmanship of C. L. Sellen, Jr., Booth Fisheries, Seattle, inaugurated Northwest Fish 'n Seafood Week (October 17-23) with an outdoor seafood luncheon, prepared by a Japanese chef. Guests were home economists from the Seattle area and representatives from newspapers, radio and television stations.

Profile Drawings of the Research Trawler Proposed by Bering Sea Trawler Committee



● New Congress meeting in January will have before it bills to provide for this federally-financed research trawler to explore the fishing bottoms of Bering Sea and the economic feasibility of their development by American industry. The project was conceived by the Bering Sea Trawler Committee, headed by James G. Talbot of Bellingham, Wash.; and the tentative plans for the vessel, of which the outboard and inboard profiles are shown here, were developed by Phillip F. Spaulding, Seattle naval architect. The vessel is an integrated ramp-type stern-trawler, equipped to fish, process and freeze bottom fish; to reduce offal and unmarketable fish; and to conduct biological, technological and oceanographic researches. The vessel's designed length is 293'; beam 62.5'; draft 20'. She would be diesel-electric powered, with 2,500 shp. Legislation providing for the vessel was introduced in Congress in 1960 by Senator Warren G. Magnuson of Washington, chairman of the Senate Committee on Interstate and Foreign Commerce, with several Pacific members of the House of Representatives submitting identical bills

Japanese Fresh Water Fisheries resources study team, headed by Koichiro Kobayashi, president of Nichiro Gyogyo K.K., is pictured in an Oregon salmon hatchery during their United States study period which ended early in October. From the left, Masao Okai, a former Japan member of the International North Pacific Fisheries Commission; Kouichi Yagi; Yoshikazu Yamanaka; Mr. Kobayashi, leader of the delegation; Yorihide Tuchida and interpreter Yutaka Okamoto in right foreground. (Back row) H. K. Phinney, OSC professor of botany; Harvey L. Moore, Bureau of Commercial Fisheries, Seattle, who directed tour; partially hidden, Robert Garrison, OSC fish and game management student; and extreme right Kodo Nakada.—Oregon State College photo

Soviet Doubles its Fleet In Operation off Alaska

● Soviet Russia mounted a Bering Sea and North Pacific fishing operation in 1960 which employed at least 129 vessels at one time, according to official information secured by U.S. Senator Warren G. Magnuson from Ross L. Leffler, Assistant Secretary of the Interior for Fish and Wildlife. Senator Magnuson is chairman of the Senate Committee on Interstate and Foreign Commerce, to which fishery matters are referred by the upper house of the U.S. Congress.

Inspection of the Soviet operations showed that in one week 110 trawlers, 14 freezerships, two dry cargo vessels, two tankers and one tug were engaged in the eastern Bering Sea and North Pacific.

This is a little more than twice the largest observed concentration in 1959.

Bureau of Commercial Fisheries opinion is that the Soviet operations were concerned primarily with sole, cod, pollock, herring and King crab.

Early in the fall of 1960 two Soviet trawlers were observed off Sitka and again off Yakutat; while three were seen about the same time southwest of Kodiak Island. Russian King crab operations, employing tanglenets and a factoryship, were centered in the vicinity of Amak and Unimak Islands.

Soviet whaling is also being pursued off the Aleutians in the vicinity of Adak.

Mr. Leffler pointed out to Senator Magnuson that the BCF would continue to observe the Soviet operations and, where practicable, would fish the same areas in order to determine the species which would be taken, as well as changes in abundance.

USSR Urges on Japan Strict Salmon Conservation

An eight-member Soviet fishery mission arrived in Japan on September 6 aboard the Soviet ship *Yakutia.* The mission is visiting Japan in accordance with the terms of the Japan-U.S.S.R. Fisheries Agreement and was scheduled to inspect Japanese fishery facilities in Hokkaido for a period of about one month.

On his arrival, the head of the mission stated to the Japanese press that there was need for both Japan and Russia to take strong measures for controlling salmon fishing operations. In a separate press interview, he added that the Soviet Union had reduced fishing operations just as the Japanese had reduced their operations in accordance with the limitations set by the two countries as the result of their annual negotiations. He held out hope to the Japanese that the maximum fishing catch could be raised at a later date if research and investigation work should prove that salmon resources are increasing. He said, however, that in the meantime measures for the conservation of resources and the maintenance of good spawning conditions would have to be strictly observed if salmon fishing over the long run is to be assured.

Nippon Reizo Strengthens Its Fleet in Brazil

Successful operation of the Nippon Reizo K.K. base at Recife, on the easterly "nose" of Brazil is leading to increasing productive capacity.

The plant has a cold storage with capacity for 700 tons of frozen tuna, and also a plant for the manufacture of tuna sausages. Supplies of tuna have been coming from two longliners of the 350-ton class and one 150-tonner.

Business has been so good that the company requested the Brazilian government to permit dispatch to Recife of 10 more fishing vessels.

Before the end of October specific approval had been granted for three additional vessels. These will be 350-ton craft which have been working the Atlantic high seas fisheries, and which will be shifted to the base in Brazil before the end of the year.

NN's Model Fish House

Alaska Packers Assn. South Naknek Installation

Photo above shows five of the six "N N" Iron Chinks, with their Most Scrubbers and sliming tables. Note the extraordinary lightness of the fish house, which has glass window walls on two sides.

Their quality protected in cold brine at approximately 32°, these Red salmon are being drawn from the refrigeration system at the Alaska Packers Association's "N N" cannery at South Naknek, Alaska, for canning. The firmness, plumpness and bright, clear eyes are evident even in this natural light photograph.

● Alaska Packers Association's "N N" cannery fish house at South Naknek, Alaska, can be counted as a model of this branch of salmon canning.

Light and space, cleanliness, arrangement, construction and equipment all contribute to its stand-out position.

The building itself is an all-steel structure, and is served by two modern fish elevators, from which incoming salmon are conveyed either (1) to the Iron Chink bins, or (2) to the refrigeration system.

This consists of 12 wood-stave tanks, each with capacity for from 12,000 to 15,000 Red salmon, depending on their average size. (They held 15,000 in the season of 1960.)

Fish received with body temperature of 60 to 70° are brought down to 32° by next morning by circulating low-temperature brine which is passed through a heat exchange system in the refrigeration compressor room adjoining. Accelerated heat-reduction is achieved by means of a

"Fantastic" Fish House at the Alaska Packers Association's "N N" cannery at South Naknek, Bristol Bay, Alaska. The all-steel building has glass walls on two sides. One of two fish elevators shown at the left. Wood stave tanks of the fish refrigeration system seen at the right under the burlap sheeting which provides shade with air circulation.

slush ice auxiliary supplementing the usual expansion coils.

● Fish are withdrawn from the tanks through gates in the tank walls at the bottom, flowing out onto a belt conveyor running between the two rows of tanks, and delivering the salmon to the Iron Chink bins in the fish house proper.

Condition of the salmon drawn from the tanks is excellent. They are firm, bright and plump, pressure on them having been virtually eliminated by the flotation effect of the brine.

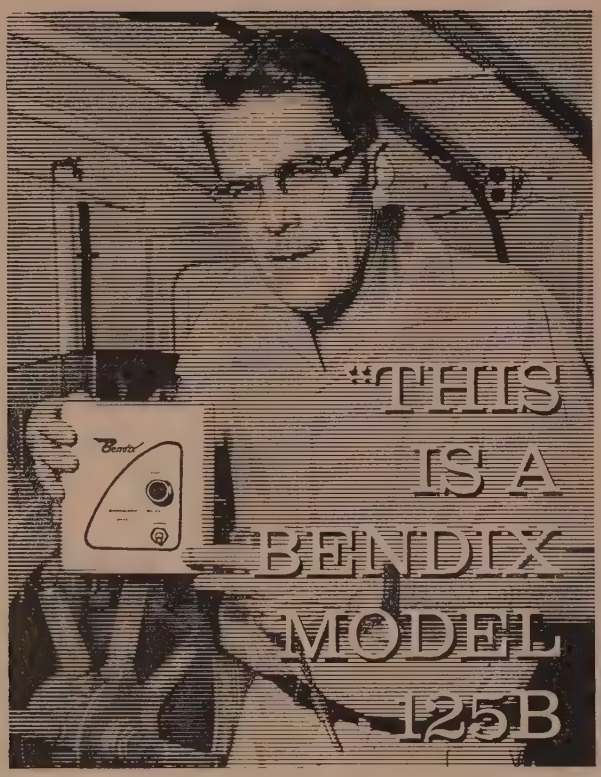
Periodic tests are made of the interior temperature of the fish.

In the fish house there are six Iron Chinks, four equipped with "Most Scrubbers", with brushes set lightly to protect the fish from rough treatment. Inspectors stationed at the discharge end of the Scrubbers divert any fish needing more work to sliming tables.

Superintendent of the "N N" cannery is Henry Bisom.

"N N" Fish Refrigeration uses these 12 wood stave tanks, each with capacity for from 12,000 to 15,000 Red Salmon, held at 32° F. Fish are received on the belt conveyor between the two catwalks, and are withdrawn through air-operated gates at the bottom onto a lower conveyor belt.

APA "Brass" at Naknek briefs a neighbor on the great "N N" fish house. Aubin Barthold, Alaska Packers Association president, bareheaded; with "Hank" Bisom, "N N" superintendent, and J. D. Cooper, production coordinator, look over a visitor, John Gilbert from the neighboring Columbia River Packers Association cannery.



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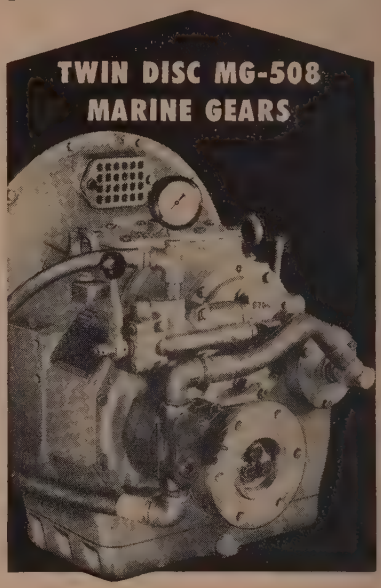

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PACIFIC FISHERMAN'S NEWS

NOVEMBER 1960

Pacific Pinks on Norway Coast to Bergen Region

Special Correspondence
From Bergen, Norway

● Norwegian fishermen frequently were surprised during the 1960 season to find in their salmon nets, set for Atlantic salmon (Salmo salar), a small and to them completely unfamiliar fish, obviously a member of the salmon family.

This fish was proved to be the Pacific Pink salmon (Oncorhynchus gorbuscha). The strength of the Pink invasion was not that of an army, but rather of its vanguard. In the first instance it was detected in the coast waters of Finnmark in the extreme north, but gradually captures of this Pacific species were made by Norwegians as far south as in the neighborhood of Bergen and Haugesund. In fact, the southmost specimen was caught in a lake east of Haugesund in the middle of September.

The season's landings were of course small, though not quite insignificant. One of the merchants dealing with salmon, for instance, reported cold storage holdings of 1700 kilos (3,740 lbs.). The individual weight of the landed pinks are stated to range between 1.5 and slightly more than 2 kilos (3.3 to 4.4 lbs.), while their quality has been described as fat and tasty.

Only members of the salmon family hitherto the objects of fishing in Norway were the Atlantic salmon (Salmo salar), the sea trout and the char (Salmo alpinus). The newcomer on the fishing fields was immediately named "russelaks" (Russian salmon) by the fishermen, and they were right: The occurrences of Pink salmon in Norwegian waters are results of large scale Soviet experiments.

● It is a long established fact that the stocks of Atlantic salmon of North-Norwegian and North-Russian origin intermingle in the Barents Sea; and also a fact that the stocks, when on nutritional and spawning wanderings, visit the north coasts of both countries. The new stock of pinks is evidently getting into the same habit. The question of whether spawning will take place in Norwegian streams must be deferred for future answering.

Light is thrown on the Barents Sea Pink appearances by Soviet reports. Thus the newspapers "Sovjetskaja Rossia" of July 5 and "Sovjetskij Flot" of August 26 reveal that 30,000 captures of Pinks have been registered along the Kola coast and in adjoining waters including the Norwegian coast.

The reports go on to state that Soviet scientists ascertained as early as in the Thirties, that the hydrological conditions of the Barents Sea and the White Sea resembled those of the North Pacific Sea area. Transplantation experiments were carried into effect, but failed until 1956, when 2.4 million fertilized eggs of Pinks and Chums were transferred from the Sakhalin region.

Thereafter capacity of the special hatching plants of the Murmansk region were substantially enlarged. Subsequently transfer of 13 million eggs was effected in 1957, 19 million in 1958 and 21.6 million in 1959.

For the first time in history, it is claimed, has transplantation of a species of salmon from one ocean to another met with success. The Barents Sea and the White Sea have proved to offer these Pacific salmon species unusually favorable living conditions. Thus the reports state, that the Pinks caught along the Kola peninsula measured 30 to 52 centimeters in length, and that the majority weighed more than 1.5 kilos, while their Pacific counterparts weigh 1.2 to 1.3

High and Scarce, Sablefish Given Sharp Attention

● Sablefishing was a feature of fish landings at Seattle during the early fall, with landings for the year through September nearly 50% above those of the first three-quarters of last year.

Price was the lever, and the strength of price basically was shortage, with no carryover into the active 1960 producing season; and strong demand indicated by the scarcity of salmon for smoking.

All this kept sablefish right around 20¢ per lb., dressed. Landings at Seattle in September — 852,000 lbs. — were worth $156,000 to the fishermen.

Tuna Seiner "Southland" Founders with 85 Tons

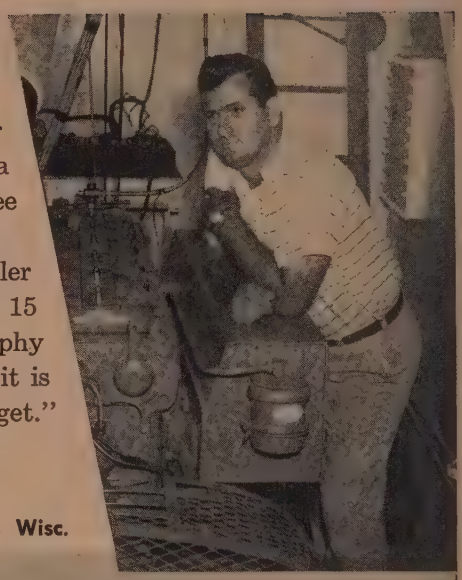
● The San Pedro purse seiner *Southland*, capacity about 120 tons, 85 ft. long, sank on the morning of September 24 off Anacapa Island, Calif. Homeward bound with 85 tons of tuna aboard, the vessel shifted cargo and turned over on her side.

All the crew was saved, picked up by the seiner *Comet*, also out of San Pedro. Skipper of the *Southland* was Pete Andrich, and the crew consisted of Peter Martin, Mike Svarich, Sam Pesusich, Matt Fizulich, Romano Govorcin, John Svitanovich, Ruben Galaz, Lee Andrich and Matt Matulich. The vessel was owned by Harbor Boat Building Co. of Terminal Island.

The San Diego tuna vessel *H.M.*, 55 ft. long, hit the rocks off Pt. Pedernales, Calif., and sank. Her crew of four clung to the rocks until daylight, then swam ashore and subsequently returned to San Diego by bus, newspaper reports said.

WHY THIS ENGINE?

When experience speaks, it generally recommends Murphy Diesel. Here's the way Felix Wiseman, Jr., of LaFitte, Louisiana, tells it . . .



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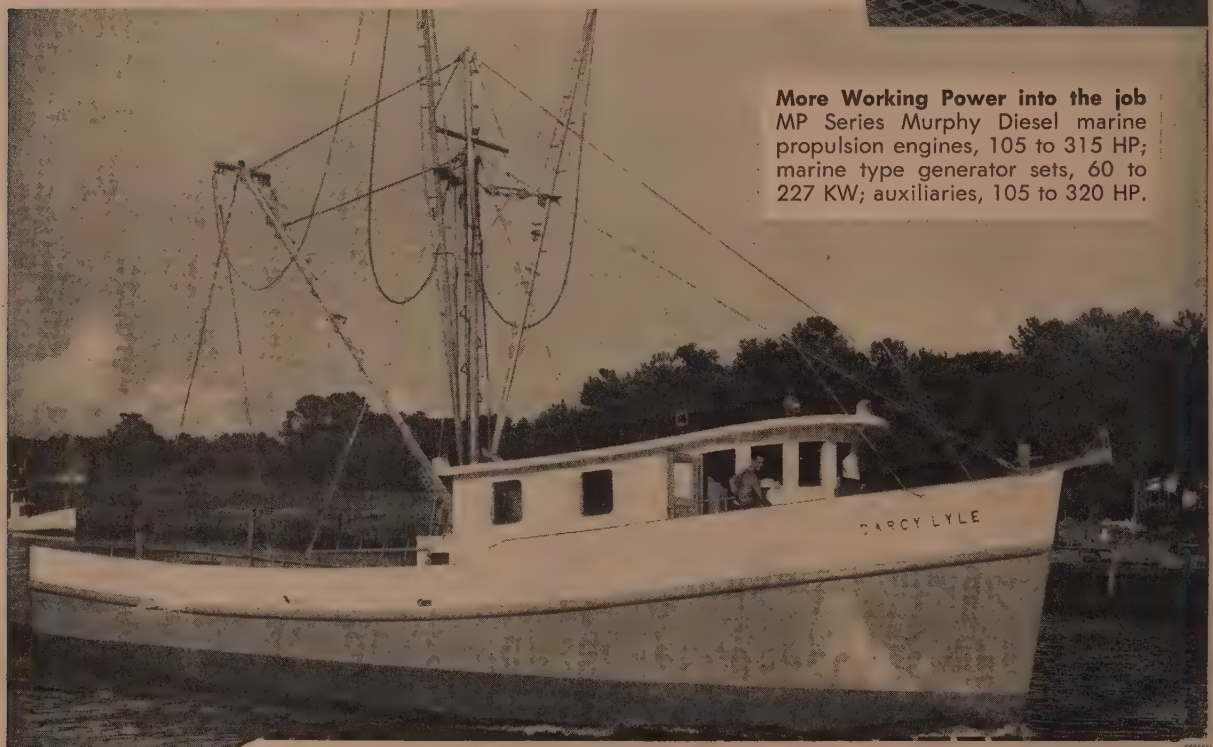

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PACIFIC FISHERMAN'S NEWS

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kilos on an average.

The reports also declare that 35 million fertilized eggs are to be transported by plane from Sakhalin and Kamchatka to the Kola coast region this autumn. In addition the hatcheries of the Murmansk coast are to operate with eggs from the now existing local run. The fry will be apportioned to the different rivers falling into the White Sea in order to obtain knowledge regarding their reproductive capability.

The Albacore Fleet Mystery—Drama of "Coho" and "Steelhead"

● One of California's strangest sea dramas, worthy of the imagination of Jack London, that took place about 100 miles off Monterey Sept. 28, kept growing in mystery.

Missing are E. A. "Dave" Davisson, 52, Oakland, skipper of the Albacore troller *Steelhead* and his fully loaded boat; and Ted Bean, 45, Benicia and Bakersfield, and skipper of the Albacore troller *Coho II*.

At 3:45 p.m. Sept. 28 Davisson radioed: "This is *Steelhead*. This is *Steelhead*. The *Coho* just shot me. The *Coho* just shot me. It's been a good life. Goodbye, boys."

After monitoring that call the Coast Guard launched a sea-air search. Bean did not respond to radio calls.

A plane spotted Bean's boat Sept. 29, and the Coast Guard Cutter *Active*, out of Monterey was sent to the scene. Mr. Bean was alone. He had guns aboard, as do practically all fishing boats, to shoot sea lions, and sharks, but he denied to the boarding party from *Active* that he had shot Davisson. He said that he did give Davisson a letter to mail, two hours before Davisson's last call.

The *Active* kept *Coho II* under surveillance. Meanwhile, 15 miles from the scene, debris, presumably from the *Steelhead* was found. Found floating was a hatch cover with a bullet hole in it, and a skiff with its plug pulled. More debris was found later —oil drums and pieces of plank.

Sept. 30 Bean volunteered to bring his boat to port and submit to questioning on Davisson's disappearance.

Bean was seen on deck on the *Coho II*. It was the last time he was seen.

As the *Coho II* approached the Golden Gate—with *Active* about a mile astern *Coho II*—she suddenly headed straight for the rocks at the entrance to the channel.

A boarding party found that Bean had put the boat on automatic pilot, and apparently had slipped over the side. A complete skin diving outfit was found aboard, but a life jacket was missing.

BMC William Nielson brought *Coho II* in to Treasure Island, where an investigation was underway by the FBI, U.S. Attorney's office, and Coast Guard Intelligence.

Davisson was president of the Central California Trollers Association.

Hal McGuire's Betty Fern, and Joseph Manzella's **Peggy Jane**, had their G.M. diesels completely overhauled by Shore Line Diesel Maintenance, Fishermen's Wharf, San Francisco.

Vagaries of Pink Salmon Scrutinized by Scientists

● The unpredictable Pink salmon came under concentrated scientific scrutiny for two solid days in Vancouver, B. C., in October when scientists of Canada, the United States and Japan thoughtfully compared notes and experience with this notoriously variable fish.

The Pink salmon symposium was sponsored by the H. R. MacMillan Lectureship of the Institute of Fisheries at the University of British Columbia.

Dr. Kisaburo Taguchi, biologist of the Nichiro Gyogyo K.K., Japan, was the principal speaker at the evening session.

Topics, all associated with Pinks, were:

"Observed fluctuations in Pink salmon stocks," with Dr. Ferris Neave, Fisheries Research Board of Canada, Nanaimo, and Dr. W. F. Royce, director of the Fisheries Research Institute, University of Washington as speakers.

"Factors in freshwater environment," E. H. Vernon, International Pacific Salmon Fisheries Commission; Theodore Merrell, U. S. Bureau of Commercial Fisheries, Alaska; Percy Wickett, Pacific Biological Station, Nanaimo; W. L. Sheridan, Alaska Department of Fisheries.

"The Marine environment": Philip Gilhousen, International Pacific Salmon Fisheries Commission; Dr. Michael Shepard and Jack McDonald, Pacific Biological Station; A. C. Harrtt, Fisheries Research Institute; Sr. Teruo Ishida, Hokkaido Fisheries Research Laboratories.

"Theoretical aspects of Pink salmon populations": R. A. Fredin, U. S. Bureau of Commercial Fisheries; Dr. W. E. Ricker and R. R. Parker, Fisheries Research Board of Canada. Dr. Peter A. Larkin, director, UBC Institute of Fisheries, was in charge of planning the symposium.

Chairmen of the several sessions, beside Dr. Larkin, were: Dr. I. M. Cowan, Dr. W. S. Hoar, Dr. C. C. Lindsey, UBC; and Dr. Hiroshi Kasahara, International North Pacific Fisheries Commission.

Mitchell Mardesich Heads Franco-Italian Packing

Mitchell Mardesich is the new president and general manager of Franco-Italian Packing Co., Terminal Island, Calif., canners of Sea Boy brand tuna, mackerel and sardines, including Sea Boy sardines in barbecue sauce, packed in aluminum cans.

Henry Abst, formerly sales manager, has taken on the added responsibility of procurement at Franco-Italian. Mrs. Marie Emerson is the new secretary-treasurer of the corporation, with Earl DeHarak as assistant treasurer and accountant.

. . . . . AMERICAN CANNERY SHIP

Pan-Alaska Fisheries, Inc., proudly presents the "Mercator"—the only American ship of its kind. A completely self-contained factory ship designed particularly for canning Alaska King Crab. It carries aboard a full compliment of packing supplies, fuel, gear and equipment for herself and a fleet of accompanying catcher boats, thereby enabling her to stand by the catcher boats throughout a productive period.

Every thought has been given to provide its crew with modern, clean, comfortable accommodations. Music is piped throughout the ship and movies are shown regularly. Its production line represents the most advanced thinking in mechanization and efficiency. The result: a top quality pack in the prime of condition.

Pan-Alaska is continually researching new ideas to bring America a top quality sea food delicacy.

PAN-ALASKA FISHERIES

PAN-ALASKA FISHERIES, INC.

OUZINKIE, ALASKA — SEATTLE, WASHINGTON

Mercator, King crab freezer and cannery ship of Pan-Alaska Fisheries, departing Seattle in October for the crab fisheries of the Kodiak Island area.

MERCATOR—

Cannery-and-Freezer Enters King Crab Industry

● *Mercator,* a new force and factor, entered King crab operations in Alaska waters early in October.

She is a 225′ steel vessel, equipped as a floating cannery and freezer by Pan-Alaska Fisheries, Inc., and dispatched to the Kodiak Island area for her initial operations.

Named for the great Flemish geographer whose system of projecting the Earth's globular shape on a flat chart has remained standard for centuries, *Mercator* is the former inter-island tanker *Hawaiian Standard,* employed by the Standard Oil Co. of California in distribution of its products in the Hawaiian Islands.

Conversion of the vessel was accomplished quietly last summer at the Lake Washington Shipyards, Houghton, Wash., and she was outfitted for departure at Pier 59, Seattle, during the last days of September.

● Pan-Alaska Fisheries, Inc., is a publicly-owned corporation headed by W. A. Ritter as president. Offices are in the Dexter Horton Building, Seattle. The company for a number of years has engaged in King crab packing, with canneries at Homer and Ouzinkie, Alaska; and also in the distribution of fish and sea foods, of its own production, and also as a broker for others.

Mercator, with its length of 225′ and 1,250 gross tons, is of sufficient size and distribution of space to serve admirably as a floating cannery-freezer. For example, she mounts a straight-line crab canning operation from the butchering station through the processing retorts.

Main power plant consists of two 500-hp. General Motors diesels, each driving a General Electric Co. generator, providing d.c. current for a single G. E. propulsion motor. While power can be drawn from the main generators for ship's use and auxiliary purposes, current for these purposes normally is supplied by a pair of Cummins 60-kw. diesel-generators.

In the field of navigation instruments and equipment, *Mercator* is also admirably equipped with two radiophones, Northern and Raytheon, radio direction finder, radar, depth recorder, automatic helm and gyro-compass with repeaters at several command points.

How Crabs Are Handled

● Pan-Alaska's floating operations will be served by a fleet of fishing boats operating large King-size pots, of which the vessel carries 200 spares, together with material for making many more. The fleet will have diesel oil bunkerage to the extent of 45,000 gals. aboard the floater, in addition to the vessel's own fuel supply.

An interesting feature of *Mercator* is the demountable live tank which

is erected on the wall deck when the vessel is on operating station. The walls of the tank consist of heavy fir planking, fitted with cleats so the structure can be readily erected or knocked-down. A great canvas liner goes inside the demountable walls. Circulating water supply is provided from one of the former tanker's cargo pumps. The other serves for fire and bilge duty.

Operating equipment and procedure follow this flow:

Live King crabs, received directly from fishing boats, or drawn from the live tank on the well deck, are butchered at a station on the starboard side of the well deck.

The Canning Operation

● Butchered crab sections are carried on an inclined metal belt through high pressure water spray wash, and then discharged into a continuous cooker—perhaps the first in the King crab business — there entering the 'tweendecks passageway. The continuous cooker is provided with variable speed drive to permit regulation of the cook according to the number and condition of the crabs being processed.

From the cooker the sections are discharged to a belt running down the "shaking table" with stations for five workers on each side. Meat is blown from the shells into flumes of water which carry it forward to a metal belt dewatering elevator, discharging into a sink-and-float shell separator.

From this unit the meat goes to a draining belt, followed by a spray rinse; and thence into a continuous blancher where the pre-cook is completed before the crab meat emerges for final inspection and placing in wire baskets for delivery either to the canning or freezing departments.

Crab is canned in 1-lb. flat, "Columbia River" ½-lb., "Alaska" ½-lb., or "tuna" ½-lb., all sizes being closed on an American Can Co. .006 seamer.

Processing is done under Taylor instrument air control in three vertical retorts, each with capacity for 20 cases of halves. Mr. Ritter emphasizes that processing in small batches is a well-established principle of Pan-Alaska operations, where the cans are processed in small quantities to obviate any delay between butchering and sterilization.

For cooling the cans are moved to the port side passageway; and thence by elevator down to the two main storage holds aft, where 20,000 cases of 48 halves can be accommodated nicely.

Freezing and Storing Crab

● For freezing, the baskets of crab meat are transferred to packing tables parallel to the canning line where the meat is packed in waxed butterboard liners supported for freezing in rustless metal frames, each holding 15 lbs. net weight of meat. The filled frames are moved to a Dole Refrigerating Co. nine-station plate freezer operating at a plate temperature of -35 to -40 degrees F.

With the 15-lb. packages, freezing proceeds at the rate of 2,000 lbs. per hour. As the packages emerge from the discharge side of the plate freezer they are put into master cartons and moved immediately to the refrigerated hold, which has capacity for 250,000 lbs. of crab meat at 0° F.

Refrigeration of the various low-temperature departments in the *Mercator* operation is handled by four compressors, a Frick on the Dole plate freezer and three Yorks on the cargo hold and refrigerated compartments for ship's stores and fishing boat supplies.

Fabrication of the specialized crab cooking, shaking, washing, draining, "boning" and packing equipment was handled by Flohr & Co. Metal Fabricators, Inc., and Western Blower Co., working from Pan-Alaska designs.

Special facilities are provided for handling the crabs from the fishing vessels, as well as for general hoisting and discharge of cargo. Principal unit for this purpose is a nimble hydraulic cargo hoist made by the Austin-Western Co. specially for the fast handling of relatively light lifts—light for marine application, that is.

● An interesting feature of the *Mercator* is her fresh water tank capacity of 300,000 gals., sufficient for about 30 days of operation independent of replenishment from shore. For securing water from shore sources on the remote Alaska coast, the vessel carries 4,000 of heavy duty hose through which water can be pumped when required.

Skipper of the *Mercator* as she went north was Capt. Franklin Thomas. Superintendent of the entire operation in its crab packing phase is Victor E. Hansen, a widely known veteran of the crab business in the Kodiak area.

Comfort and Self-Sufficiency

● *Mercator* has accommodations for 40 persons, all in staterooms for two and three. In addition to the facilities for the ship's own personnel, she is fitted with recreation quarters for crews of the fishing boats, with laundry machines for their convenience, and with a "company store", where the ship's company or the crews of her fishing vessels can purchase their requirements of clothes, frozen meat, fishing gear and general groceries. The store, ship's office, laundry and recreation facilities are all in the after deckhouse.

Pan-Alaska Fisheries management in outfitting *Mercator* and planning her operations recognized the desirability of providing comforts for the crews of the fishing boats as well as the ship's plant personnel during the long winter months of the King crab season. The expedition also had to be largely self-sufficient, able to operate with a minimum of re-supply on a virtually independent basis for a period of six months, supporting its fishing fleet as well as the factoryship operation.

Mr. Ritter considers that the management this season is "cutting its eye teeth", as he puts it, on this type of floating operation; with the view in mind that in the future it will need to expand its field of operation to Westward to keep pace with development of its marketing program.

Such Westward movement, coupled with mid-winter operation, means that re-supply points will be few and widely scattered. Thus Pan-Alaska is putting special emphasis on *Mercator's* first season as a period for stressing the development of self-sufficiency on the part of vessel and management alike.

North American Fisheries Expands in Vancouver

The canning plant of North American Fisheries, Ltd., headed by Jack Elsey, has been moved to a Vancouver, B.C., waterfront location and materially expanded to handle more lines and greater volume.

The new location is on property previously occupied by Union Steamships, Ltd., which went out of business a few months ago after operating one of the largest passenger and freight coastwise services on the Pacific coast for more than half a century.

Quarter-pound, half-pound and four-pound lines have been installed, as well as a new boiler and other equipment, and the whole building renovated at a cost of some $30,000. There is ample scope for expansion, and the company plans to carry on a business in fresh and frozen as well as canned salmon and other lines. Troll-caught as well as seine and gillnet salmon is being delivered to the plant, which has a capacity of over 50,000 lbs. per shift. Entire output is exported to the United Kingdom.

Douglas Haigh, well known in the B.C. fishing business and formerly associated with B.C. Packers, has joined the company.

45,000 hours deep-water dragging before first engine overhaul...using RPM DELO Oil

The 56 foot dragger Noyo Star operates out of Ft. Bragg, California. Built in 1944, she received her first engine overhaul in 1957 . . . 13 years after launching! The Noyo Star uses RPM DELO Oil exclusively.

"I wouldn't use any other oil," says Owner and Captain Manuel Figueredo. "We ran 45,000 hours before the first overhaul! There were no stuck rings. There wasn't any corrosion . . . the engine is still in beautiful shape. We fish hard, every day, dragging in depths up to 350 fathoms, but "RPM DELO" keeps our diesel in perfect condition."

Shipnotes: 150 horsepower Murphy diesel powers the M.V. Noyo Star. Engine required only one overhaul in last fifteen years. Top speed is nine knots—fishes for sole, rock and ling cod. Navigation and fishing aids include a Fathometer, radio and Loran.

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Hawaiian Bait Famine May Be Solved by Foreign Fish

● Hawaii's tuna fishermen at last are able to count in some degree upon introduced bait fish, supplementing the supply of native nehu, the scarcity of which has been the principal handicap of the Hawaiian tuna industry from its inception.

This season the occurrence of Marquesan sardines, introduced into Hawaiian waters by the U. S. Fish and Wildlife Service has increased to the point where the Hawaiian State Division of Fish and Game has been able to lift restrictions on the use of this fish for bait.

Similarly the threadfin shad, introduced into Hawaiian inland waters only a little over a year ago from California, is reported to be reproducing so successfully in Hawaii that it is available for bait use.

The threadfin shad tolerates either fresh or salt water, reproduces rapidly, and has been proven by sea trials an excellent bait fish. Moreover, it does not grow beyond the size limit for most effective bait, a failing of the tilapia, which has been introduced and grown successfully in experimental work in which the Hawaiian Tuna Packers, Ltd., has participated financially with the federal and state fishery authorities.

Initial introduction of Marquesan Sardines was made into Hawaiian waters in late 1955. Additional releases were made in 1956, 1957 and 1958. By 1957, adults in spawning condition were captured near the Island of Oahu and by September, 1960, additional recoveries were reported from Kauai, Maui, Hawaii, Molokai and Kahoolawe. Recoveries of young fish, indicating successful spawning in Hawaiian waters, were made during late 1958 and 1959. The State Division of Fish and Game placed restrictions on the capture of the Marquesan Sardines in Hawaiian waters, pending their establishment. As these fish are now successfully established, the restrictions have been lifted.

● Tilapia were first brought to Hawaii in 1951. From 1954 through 1956, sea tests were conducted to determine the effectiveness of these fish as a skipjack bait. They proved to be an adequate bait fish, especially for the larger (18-24 pound) Skipjack.

Investigation into the economics of rearing Tilapia were made at a small hatchery in Honolulu and at a larger hatchery on the Island of Maui.

Bait size Tilapia from the Maui plant yielded an average catch of 46-50 pounds of skipjack per pound of Tilapia used as live bait. Comparable figures for nehu were 50-57 pounds of Skipjack per pound of nehu.

The favorable results of the investigations, both as to the success and economics of rearing Tilapia by hatchery methods and their use as live-bait, encouraged the Hawaii State Board of Agriculture and Forestry to request funds from the State legislature for the construction and operation of a Tilapia hatchery.

● A large shipment of threadfin shad was received in Hawaii during August, 1959. These fish, after acclimatization to fresh water, were planted in various rivers and reservoirs on the Island of Maui, Kauai and Oahu. The first successful indication of shad spawning was reported from a reservoir on the Island of Oahu on May 1, 1960, where 20 small schools of 1.5-3" shad were observed. On June 11, 1960, more than 200 shad were caught from a reservoir on the Island of Maui. The average length at time of planting was 9.5 cm. Successful spawning in the Maui reservoir was evidenced by the capture of shad as small as 1.9 cm. With the successful completion of the HBL project to introduce the threadfin shad into Hawaiian waters, this potential bait species (which is prolific, can tolerate fresh or sea water and has been proven by sea tests to be an excellent bait fish) is now available to the Hawaiian skipjack fisherman.

Southern California Domestic Tuna Deliveries

Cumulative totals for 1960 through October 15, in tons, as reported by U. S. Market News Service

	Albacore	Bluefin	Skipjack	Yellowfin	Bonito, etc.	Total
Clippers and Albacore Fleet	14,674	.....	16,583	19,706	....	50,963
Purse Seiners	54	5,004	5,311	56,728	136	67,233
Total 1960 through Oct. 15	14,728	5,004	21,894	76,434	136	118,196
Total 1959	13,194	7,233	53,050	46,451	545	120,473
Total 1958	12,036	15,160	50,801	56,475	2,135	135,607

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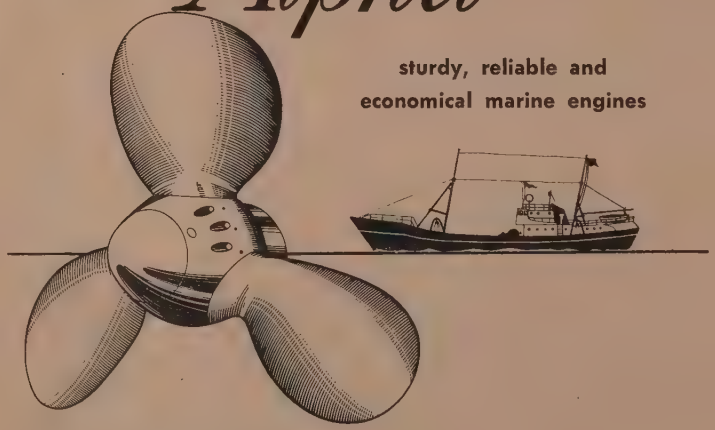

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Every Clipper-Seiner Conversion Produces Its Distinctive Wrinkle

● As the tuna clipper-to-seiner conversion parade continues, and more and more and more former bait boats are worked over for netting, a "standard" pattern has developed. At the same time, some very interesting deviations from the standard are coming out, for nearly every skipper or engineer has his own ideas about the best way to do this or that job.

So now we have converted seiners with or without poopdecks, with or without turntables. Under conversion as this is written is one seiner with an entirely new arrangement for hanging the power-block, and an equally original type of crow's nest.

St. Matthews, which last month made her maiden trip after conversion at Harbor Boat Building Co., Terminal Island, is by and large a standard conversion job, but the engineer, Walt Meehan, designed and built a new wrinkle for powering the net winch.

Truck Rear End Used

● Power for the big multiple Northern winch is provided by a GM 471 105-hp. diesel auxiliary engine mounted in the engine room. The power drive works through the rear end of an International Harvester truck, mounted over the engine. The rear end provides a 6:1 reduction and a right-angle drive at the same time.

Thus the winch is driven mechanically, but the controls are operated hydraulically, with a hydraulic throttle.

Power for the power block and the boom controls is entirely hydraulic.

St. Matthews, like most converted clippers, has plenty of power. Her main propulsion engine is a Union 560-hp. six-cylinder diesel unit. Her auxiliaries are two 180-hp. 100-kw. General Motors diesel engines, and the vessel ships a spare 671 GM 60-kw engine for lights and power aboard.

The new seiner started life as a Navy "YP" vessel, a refrigerated transport built in Seattle. She is 128' long with 28' beam, a wood hull.

Several months ago *St. Matthews,* based in San Diego, was purchased by a group of San Pedro purse-seine fishermen and sent to Harbor Boat for conversion. The new owners are

Hydraulic arteries on the right are Aeroquip hose and fittings which power the boom winches and power block on **St. Matthews,** whose interesting purse winch drive is shown on the right, above the GM diesel whose power is transmitted through the truck differential to the Northern seine winch on deck.

St. Matthews principals: Capt. Srecko "Lucky" Matura, skipper and part owner, on the left; then Steve Matura, managing owner; and Dusan Grgas, net boss and mast man.

1961 National Boating Exposition

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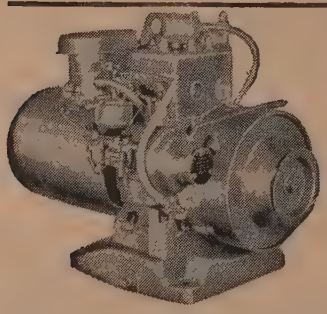

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Designed and built by

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Srecko ("Lucky") Matura, skipper; Steve Matura, managing owner; Dusan Grgas, net boss and mast man; Tony Matura, John Dadich, Matt Gargas, Vince Grgas and Joe Sunjka. The owners are all related either by blood or marriage, and are all practical and veteran fishermen.

The vessel will fish for Pan-Pacific Fisheries of Terminal Island, a firm headed by Gerald Cigliano, who is a veteran fisherman himself. Vincent Todice is fleet captain for Pan-Pacific.

Like most former clippers, *St. Matthews* lacks no navigation aids. She has a Sperry automatic steering, and Allen automatic steering, Raytheon radar, a Fathometer, and an Apelco radio. Extensive use is made of Aeroquip hose in the hydraulic installations.

Here is the hydraulic drive and control installation on a tuna seine skiff using bigger propellers and higher reduction in the transmission system to fit the heavy craft better for their duty, while maintaining the light and flexible power of high-speed diesel power. Note the Vickers hydraulic unit which powers the winch through Aeroquip hose and hydraulic couplings, widely used in Pacific fisheries from Bristol Bay to the Galapagos.

● The new seiner ships a Sea King nylon net, made by Fish Net & Twine Co. and supplied through C. J. Hendry's San Pedro supply house. The net is 500 fathoms stretched measure, and about 40 fathoms deep. The main part of the net is 4¼" webbing, 36 and 42-thread, with a lead line strip of 8" 72-thread and an intermediate strip of 5" 48-thread webbing, 100 meshes deep, between the 4½" portion and the 8" lead-line strip.

The lead line is 7/16" galvanized steel chain. Rings are ⅝" galvanized steel, 8" diameter with ⅝" end links attached. Ring bridles are ¼" galvanized chain.

Her cork line is ⅝" braided nylon, kept afloat by about 3400 Spongex floats, the big size, 6 by 7" with 1¼" holes.

The bait pump motors, obsoleted because purse seiners don't use bait, were put to good use by John Gomes, assistant engineer. They now drive the hydraulic unit that moves the Puretic power block and the big boom. Motors are two 30-hp. electric units.

The skiff for the new conversion was built by Fellows & Stewart of Terminal Island. She measures 28' long, with 15½' beam and is powered by a GM 471 diesel engine, 115 hp., with 2½:1 reduction gear.

St. Matthew's refrigeration was untouched in the conversion. She ships one 6-by-6 Baker Ice Machine and two Frick 6-by-6 compressors for the fish holds, plus one 3-by-3 Baker for the galley boxes.

Besides the *St. Matthews*, Harbor Boat Building Co. is converting the clippers *May Queen, Aggressor,* and *Jo Maria.*

MONTEREY BAY ITEMS

● *General Fish Co.,* Moss Landing, has installed a mink food plant, and a mechanized fillet line.

Mission Fisheries, Monterey, Ignatius Favalora, manager, has installed a new freezer with 60,000-lbs. capacity, and three new Kramer compressors.

Regal Fish Co., Monterey, has bought the property in Moss Landing that it leased from Wilbur Sandholt, as a receiving station, according to Howard Low, manager. The firm now has 400' of waterfront, and has rebuilt the dock on the property. It buys for Los Angeles Smoking & Curing, and for Star-Kist. Howard reports that his company enjoyed a good salmon season, but the Albacore season was fair—the fishing was good, but spotty due to tie-ups and strikes.

Consolidated Factors, Monterey, now has a fleet of four trucks for hauling sea food, mostly between San Pedro and Monterey. Kay Nobusada reports a poor quid season.

Nuncio D'Aquisto, A. D'Aquisto & Sons, Monterey fishermen's supply and equipment firm, and Phil Hover, owner of Hover Equipment Co., have merged forces under the name of Hover Equipment Co., Inc. Nuncio has moved his fishermen's supplies and equipment into spacious quarters in the Hover establishment on Fishermen's Wharf. Phil is president, Nuncio vice-president, and Jim Boone, is secretary-treasurer.

Peter Anistratenko, has repowered his troller *Saga* with a GM 3-53 diesel engine with 3-1 reverse and reduction

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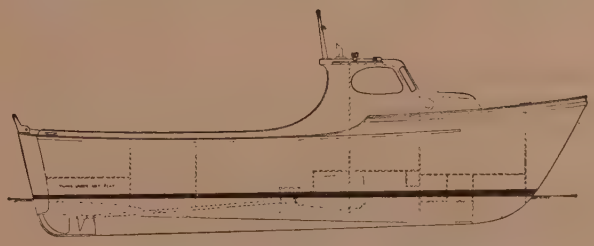

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gear, purchased from and installed by Hover Equipment Co., Inc.

John Triolo has repowered his *Belori II* with a GM 3-53, with 2½-1 reverse and reduction gear, also from Hover Equipment.

Moss Landing Harbor District has had the whole harbor dredged and has increased berthing facilities to hold 50 or more large boats and 50 smaller boats. Drinking water has been brought down to the fish boat berths, and plans are being drawn up to increase facilities further.

C. Stagnaro Fishing Corp., Santa Cruz, has added a new fish processing room, and a 20 x 60' holding box with a Cyclops ice machine. The new facility has a capacity of 55,000-lbs. Malio Stagnaro, manager, states that the salmon season was good until just about six weeks before it ended, then it petered out.

Santa Cruz Fisheries, John Carneglia, manager, has a new ice machine, and it has equipped its sea bass boat *Maria* with new nylon nets.

L. R. "Vern" Meyer, who some time ago organized the L. R. Meyer Co. to manufacture mink food from scrap fish and fish offal in Eureka, has put in a mink food plant on Fishermen's Wharf, San Francisco. The plant has a capacity of about 20 tons per day. It is packed in 50-lb. polyethylene bags and frozen.

Stanley Gantz is the new manager of the Standard Oil Co. marine service station at Fishermen's Wharf, San Francisco. He takes the place of Stanley Booth who has been promoted to be manager of the Standard Oil bulk plant at South San Francisco.

Troller Lost at Sea

Graham Furness, 38, Monterey, skipper of the Albacore troller *Irish Rose* was missing and presumed to be drowned last month after being washed from the boat by a big wave.

Gerry Walter, 40, boat puller, said Mr. Furness was lashing down deck gear when the boat's mast snapped and fell on the skipper.

Men of the Fishing Fleet Always Reap Benefit From Attending the Boat Show

• You may not be in the market for a sparkling new cabin cruiser or sailboat, but the $6-million exhibit of marine equipment on display November 25 through December 4, at the Armory building in Seattle includes many things vital to your fishing operation. If you purchase or use any of the hundreds of marine equipment items on display, here again is your chance to compare the whole assortment under one roof. This 1961 Seattle National Boating Exposition, celebrating its 13th Anniversary, is still an important showplace to the professional as well as the amateur in the marine fraternity.

Fishermen, cannery operators and purchasing agents have always found the boat show a most enlightening experience. Here are some of the reasons why:

• They have the opportunity to look at many new ideas in marine gear, some of which are being shown for the first time anywhere.

• They have time to meet the engineers and salesmen who can pin down the practical facts behind all the sales literature and publicity.

• They enter a marketplace where other men in the fish business are looking for ideas too. It's often an opportunity to renew old acquaintances and make new ones.

While the emphasis is on the growing population of boat amateurs (some 55,000 attended the show last year and 70,000 are expected this time), many of your old friends among the boatbuilders and marine dealers are attending and showing their latest wares.

Here are a few of them, scanned from a list of over a hundred exhibitors: Alaska-Pacific Supply Co., Alemite Co. of the Northwest, Apex Marine Equipment, Mel Barr Company, Boeing Airplane Co. (the new gas turbine engine), J. F. Boyce, Inc., Andrew Brown Co. of Washington, Bryant's Marina, Chain Gear Inc., Cummins Diesel Sales of Washington, Dearborn Marine Engines, Evans Products, Fiberlay, Fisheries Supply Co., Fremont Electric Co., Grandy Boat Co., J. B. Hickman Co., R. D. Hurst Co., International Paint Co. and International Sales Corporation, Johnson Motors, Kolstrand Supply Company, McGinnis Marine Service, Harlan C. McKay Company, Metal Marine Pilot, Michigan Wheel Co., Modern Motors, Inc., Edwin Monk, N C Marine, Nordby Supply Co., Northwest Instrument Co., Pacific Fishing & Trading Co. and Pacific Marine Supply Co., Piston Service Inc., Port of Seattle, Radio Corporation of America, Raytheon Company, Ross Laboratories, Skagit Plastics, Sunde & d'Evers Co., Tillicum Marina, Washington Boat Center, Washington Stove Works, Western Boat Building Co., and White Diesel Engine Division.

This is the planning time of the year for their sales as well as for your purchase, so they will be interested in your comments and reactions to the things they plan to supply for the industry.

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W. P. Rhea, Bendix Manager, At Bergen Fish Fair

Commenting on the recent National Fisheries Fair held in Bergen, Norway, which he attended, Walter P. Rhea, manager of the Marine Department of Bendix Pacific, North Hollywood, Calif. said "without doubt, this was the largest and most elaborate exhibit of marine equipment for the fishing industries that I have ever seen."

Opened by King Olav of Norway, the National Fisheries Fair had 218 exhibits from the leading manufacturers of engines, deck machinery, electronic equipment, all types of fishing gear, such as nets, floats and hauling equipment and fish processing machinery. Several complete fishing boats fully equipped with the latest electronic equipment and machinery made periodic demonstration trips from Bergen Harbor.

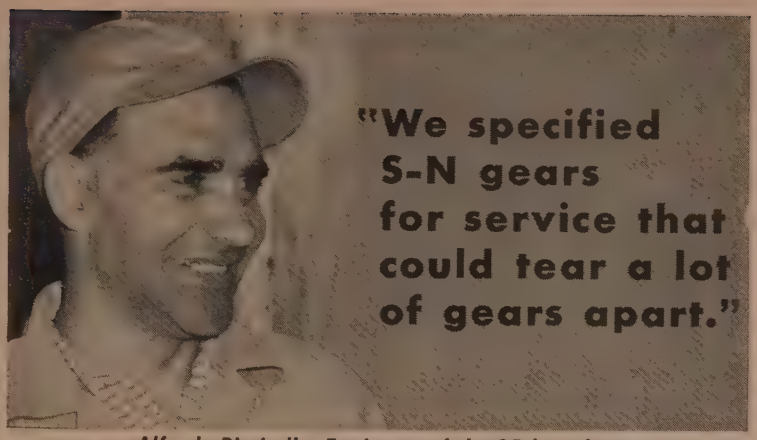
One of the features of the fair was a 75' long relief map of the west coast of Norway, divided into major areas, depending on the different types of fishing done along the coast. Color motion pictures of the types of fishing, adjacent to the respective areas, were in continuous operation; and models of various type fishing craft were in motion along the coastlines.

Mr. Rhea observed that because of the importance given to the fishing industry by the Norwegian government, greater advancement in fishing equipment was evident. Even greater importance has been placed on electronic products, such as Asdic (horizontal searching) and high-powered depth sounders. Norwegian fishermen were the first to use depth sounders as a means of locating fish and Bendix depth recorders were the first to be imported in quantities.

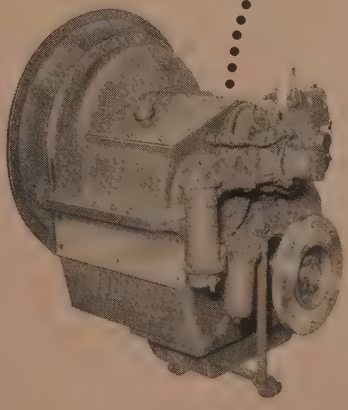
While in Norway Mr. Rhea met with Dr. Gunnar Rollefsen, Director of Fisheries Research, and discussed the future requirements of the Norwegian fisherman with respect to electronic equipment. Mr. Rhea said that Dr. Rollefsen was particularly interested in a new horizontal fish finder which Bendix has been developing and which appears to be a substantial advance over recording types of equipment now being used for this purpose in Norway.

While in Europe, he took the opportunity to visit with Bendix dealers and licensees in Denmark and England.

Ebb Tide, troller skippered by Robert Hill, Eureka, and owned by G. J. Giamalis, Eureka, went on the beach north of Eureka last month. Mr. Hill escaped without injury.



says Alfredo Piscitello, Engineer, of the 95-foot dragger, Columbia, of Gloucester, Mass.



"On a big dragger like the *Columbia*, it takes a lot of power to battle the waves and currents off the New England Coast. So we repowered with a 510 h.p. Waukesha, and this called for gears that must stand up in service that could tear a lot of gears apart. That's why we specified S-N Reverse-Reduction Gears. They're really rugged . . . I can count on them when the going is rough." Heed the words of this power-wise engineer and specify S-N gears for your new boat or repowering. See your S-N distributor or write direct. The Snow-Nabstedt Gear Corporation, Hamden, Connecticut

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MORRO BAY NOTES

● *Joe Giannini*, owner of Marine Service & Equipment Co., recently installed a Model 1700 Raytheon radar on Nino Davi's Monterey purse seiner *New Roma*.

Rio Janeiro, is now trawling for Morro Bay Fisheries. Skipper and owner of the boat is Lloyd Lindwall, brother of Vic Lindwall, one of the principals in Morro Bay Fisheries. Lloyd traded boats with Charlie Stephens who now has Lloyd's former boat, *Linda*, a 45' crab boat. Vic and Lawrence Carver report that sea bass fishermen have been getting quite a lot of bonito for which they are being paid $80 per ton.

E. L. Elmore, Elmore Abalone Co., has four diving boats working for him—one at Morro Bay, and three others working in the Santa Barbara Island. Mr. Elmore is opening a whole-sale and retail fresh fish plant at Hueneme. He reports that the abalone business was poor this summer on account of windy weather.

Mrs. Betty Yancey, operator of Jamieson Sea Food Co., is planning on building a new fish processing plant on the new dock she has just built. She plans on leasing the new facilities. At the present time she has one abalone boat fishing for her.

Frank Brebes, Frank Brebes Fish Co., is putting in a new 218 x 35' dock. It will be equipped with a new electric hoist. He has repowered his abalone boat *Hornet* with a new four cylinder GM diesel engine. Don Gallagher is skipper of the *Hornet*.

Orville Leage, El Morro Oyster Co., states that they had a very good year, and the oyster look fatter for next year. Orville went north this summer to fish for salmon for Queen Fisheries, Nushagek, Bristol Bay, and had a very good season.

★ SELLING & BUYING ★

12¢ a word per time, $4.00 minimum. (For box numbers addressed to PFN, add $1.50.) Business card display—$29.00 per column in. per insertion, with lower rates on contract basis. Mail all copy to PACIFIC FISHERMAN'S NEWS, 71 Columbia St., Seattle 4, Washington.

FOR SALE—General Motors 3-71 Marine Propulsion Unit. 60 injectors, Fresh water cooled. 2-1 Twin Disc, New Starter and Generator. Used, in good running condition. $1400. Ed Deringer, 171 West 223rd St., Torrance, Calif. TE 5-6044.

41-foot Troller "Pamaro"—$3,000. Chrysler Crown, Meter, Apelco Phone. Lots of Gear and Charts. 11 Ton Net. At Peninsula Yacht Basin, Gig Harbor, Washington. Larry Fleming, 1370 Park Hill, Chehalis, Washington. Phone SH 8-7493.

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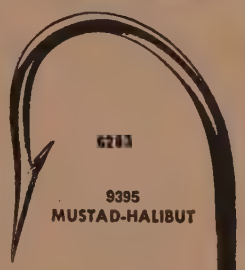

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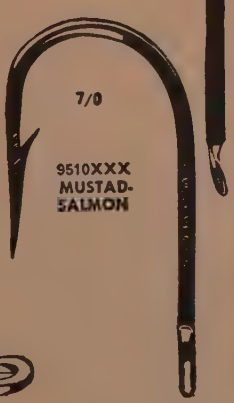

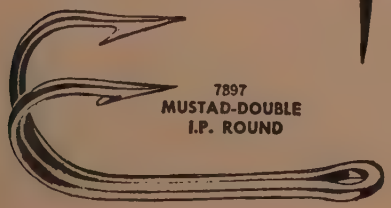

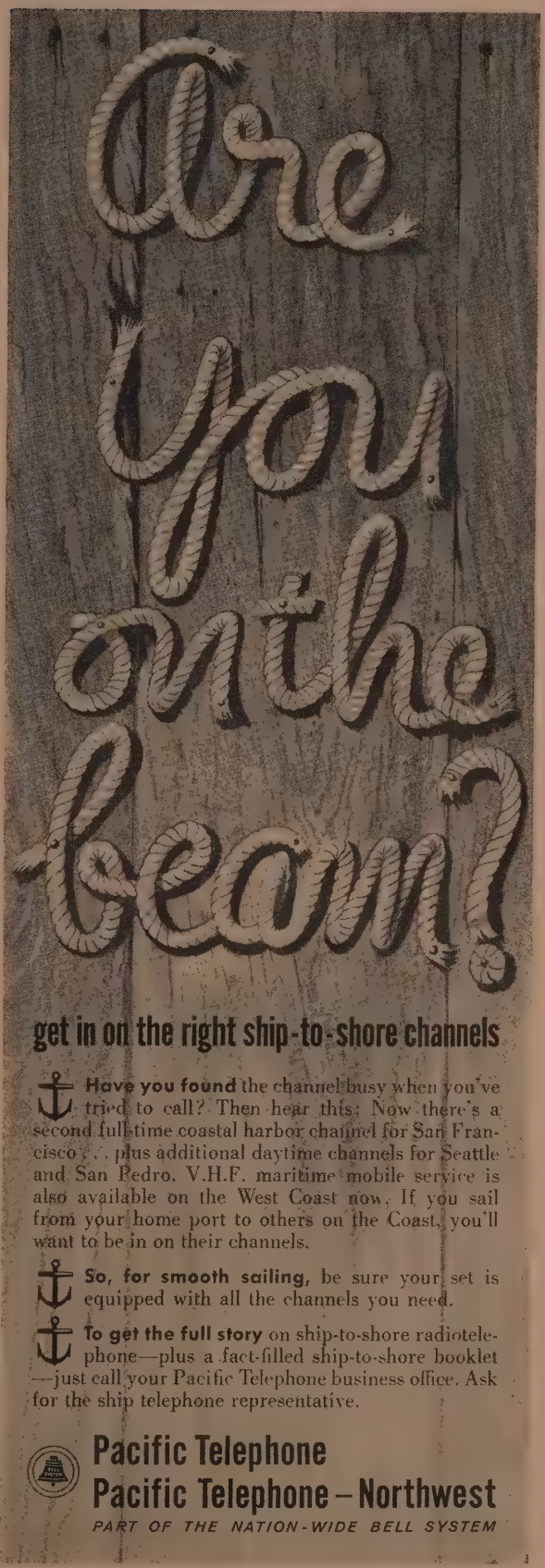

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Chile's Fishery Potential Immense

But Realization Will Require Know-How, Effort and Capital

An Interview With

PETER G. SCHMIDT

Marine Construction and Design Company, Seattle

● Much work is yet to be done in the development of a modern fisheries industry in Chile, according to Peter G. Schmidt, president, Marine Construction & Design Co., who recently returned to Seattle from several months in Chile. An interview with *Pacific Fisherman,* brought out several points:

1. The series of severe earthquakes a few months ago in Chile did not cause permanent damage to the fishing industry there.

2. A trial fishing operation with three modern boats, using U. S.-trained crewmen from among qualified fishermen in Chile, has just commenced.

3. A new shipyard under construction at Iquique, will be able to build large, modern, steel fishing craft.

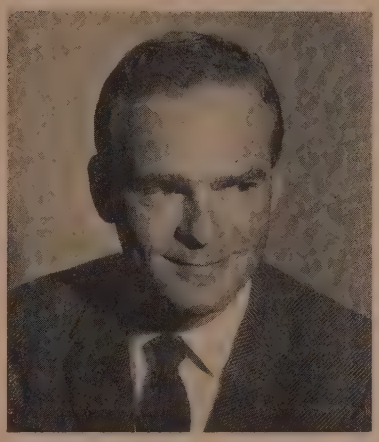
4. The only highly mechanized part of the industry at present, fish meal processing, has been set back considerably due to the depressed world prices for fish meal and has entered a period of "shake-out" where less efficient producers will not survive.

5. The total fishery potential of Chile is still considered great, but its full realization is limited by several factors.

● To elaborate on the above five points, in order:

The earthquakes, which caused serious concern everywhere for Chile's welfare, hit hardest in the region south of the Concepcion area. From Concepcion north, the quakes caused about two weeks' interruption of fishing but no permanent damage. Tides swelled about 12 feet above normal, but docks there are built so high above sea level that they escaped flooding in most cases.

The southern coast was of course hard-hit, but the simple equipment in use there, catching fish only for local consumption, will be relatively easy to replace. Funds are being made available from the United States and other countries to buy netting and small engines, and to finance the rebuilding or replacement of small boats used in the fishing villages, some of which fleets were wiped out completely. Had there been extensive fishery development at this time along that part of the coast, the losses would of course have been tremendous.



Peter G. Schmidt, president of Marine Construction & Design Co., Seattle, who is participating actively in the development of the rich fisheries potential of Chile.

● Three new steel fish boats have begun an experimental operation in the Concepcion area. The modern 54' craft (*La Pinta, La Nina,* and *Santa Maria*—see pg. 33, *Pacific Fisherman,* March, 1960) are learning what modern seining and trawling gear can accomplish on these grounds. North American skippers, and crews trained by them in Chile, are delivering fish to the locally-owned firm "Alimar," which processes fish meal and sends fresh fish to local markets and to Santiago.

It is springtime now in Chile; the fishing season is just gathering momentum, and it is expected to take at least six months before conclusive results can be studied. Senior captain is Axel Thygesen of Seattle; with him is Ivar Gersdal of San Pedro. Jack Bird was sent from Marco in Seattle to organize the operation. Don Gamble of Oakland helped train the local fishermen now in the crews of the three boats.

A new shipyard, to be known as "Astilleros Iquique Division of Marco Chilena," is under construction and will be able to build steel vessels up to 100 tons. The yard is being built under a government contract with participation by a Chilean contracting firm. Building of vessels themselves will not commence, of course, until the facility is more complete, but it will be a modern plant of large capacity, to meet the growing need for new fishing vessels.

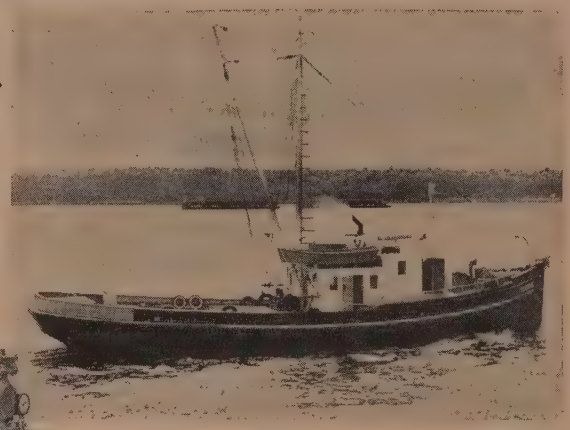
● The fish meal industry in Chile, as elsewhere, is due for a "shaking-out" process, according to Mr. Schmidt, because less efficient producers cannot survive under presently depressed world fish-meal prices. Too many foreign investors speculated in these plants at times when prices were high and fish meal production appeared to be the easiest phase of the fish business to mechanize. This part of the industry will continue to grow over the long run, but only through efforts of cautious and well-informed investors.

Total fishery potential is still considered immense. Possibilities for a modern fleet, fishing along a 2800-mile coastline, where there are less than 70 vessels over 15 tons at present, are most challenging. Fishing has been at such low intensity that it is hard to predict what the future magnitude of the fishing industry can be in Chile. Several factors limit this development just now:

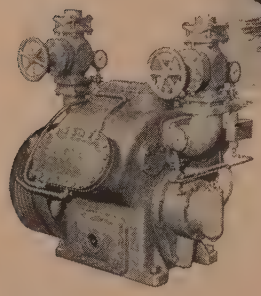
1. Consumption of fish has been increasing in Chile, but is still small. The local canned product is handicapped by high price, comparatively low quality, and poor acceptance. The distribution of fresh fish is still inadequate, with only a few firms doing an aggressive distribution job.

2. Some import trade barriers remain, although the careful removal of

Alaska Salmon held to perfection aboard Theo E using Vilter refrigerated sea water



The Theo E, one of a number of vessels owned and operated by Norman Holm, is equipped with a sea water chilling system using a Vilter VMC compressor and condenser. Hold capacity of the Theo E is 95,000 pounds.



A view of a typical Vilter VMC ammonia compressor. Available in 2, 4, 6, 8, 12 and 16-cylinder sizes. Vilter VMC compressors supply maximum capacity in a minimum of space.

An increasingly popular method of removing heat from fish is the use of chilled sea water in place of regular icing. The sea water prevents air from surrounding the fish and affords little opportunity for oxidation of the fish surfaces . . . flavor and freshness are preserved. This chilling system also results in more production per boat and reduced labor costs.

Among the sea water chilling installations aboard ship in the Puget Sound and Alaskan area is the *Theo E,* a vessel owned and operated by Norman Holm of Seattle. On the *Theo E,* sea water passes through a chiller where it is cooled and then circulated in the brine tanks to protect the catch. The chiller is located in the main tank and is regulated to provide a constant 29-degree temperature. It can bring a full cargo down to this temperature within 14 hours.

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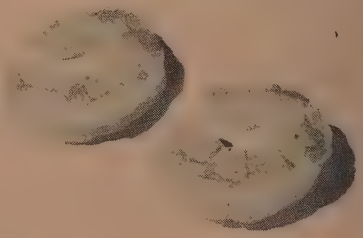

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these is now in progress by a government concerned for the development of a home fisheries industry.

3. Investment capital has been too interested in development of fish-meal production for export to North America and Europe. Meanwhile the opportunities for market development within South America have not been fully explored.

4. Lack of roads and other transportation facilities prevent rapid development of trade to the interior. Development of a true fisheries industry musto move with the whole economic development of the country—it cannot move faster.

Nylon Seines Salvation For Herring Fishermen

The Alaska herring season of 1960 was a trying one and some sharp reverses were suffered, but as fishermen give their account of the problems of the year they generally credit nylon nets with having saved the situation for those fishermen who avoided disaster.

Where natural fiber nets were used the wet summer and the tremendous quantities of jellyfish usually ruined the nets before the season was half over; and then when a boat finally wrapped a good school of herring the web burst and the fish were lost.

Not a boat equipped with nylon suffered this disaster; but one seiner with a natural fiber net found its gear so weakened that its crew abandoned the season and headed south.

The nylon nets seemed to resist the destructive action of fresh water and jellyfish without damage.

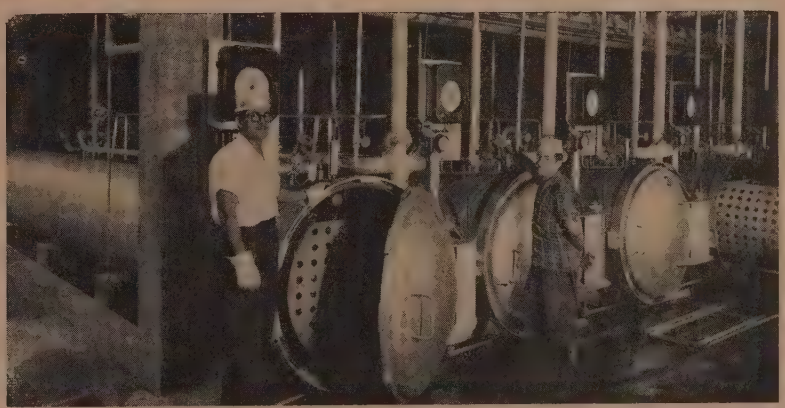
La Pinta, one of the Marco-designed-and-built steel seiners, conceived to meet the specialized fishing needs of service in Chile, where she and her sister craft are giving good account of themselves in industrial fishing.

Nelson Spencer, 68, was found dead in the shattered wreckage of his salmon troller, on the rocks near Pt. Arena, Calif., last month. Mr. Spencer, who lived in Oakland, had left Bodega Bay about two weeks previously.

Giuseppi Crivello, 72, retired Monterey fisherman, died last month. He leaves a wife and four sons.

CONGRATULATIONS AND BEST WISHES TO STAR-KIST CARIBE FOR THE WORLD'S NEWEST AND FINEST TUNA CANNERY!

"We're Sincerely Proud of Our Retort Installation in the New Mayaguez Plant of Star-Kist Caribe, Inc.



Five Double-End Retorts, All of the Quick-Opening Type, Provide the Process Cook. Each Has a Capacity of Thirteen Standard Tuna Processing Baskets. The Porto Rico Iron Works Also Supplied Miscellaneous Tanks and Other Steel Vessels for this Modern Plant.

Porto Rico Iron Works, Inc.

● PONCE, PUERTO RICO ●

New A-C 21000 diesel in "Evening Star" slashes running time and fuel consumption

Fred Petersen, above, skipper and partner of the 70-ft "Evening Star." Norris Lee, below, engineer and partner.

Allis-Chalmers 21000 turbocharged marine diesel turns a 56 x 40 wheel through a 4½:1 reduction gear. Engine is rated at 230 shp at 1800 rpm for continuous heavy duty.

Evening Star, owned by Fred Petersen and Norris Lee of Poulsbo, Washington, began the 1960 halibut season with a new Allis-Chalmers 21000 turbocharged marine diesel. Advantages of this new engine began showing up immediately. On the initial run from Poulsbo to Ketchikan, Alaska, Capt. Petersen reported a gain of *five hours* over previous running times for the route. The new engine showed remarkable fuel economy, too, using only *630 gal. for 64 hours* of continuous running to far surpass previous performance.

If it's time for a new diesel on *your* boat, be sure you repower for maximum profit! Contact your Allis-Chalmers marine engine dealer or write — Allis-Chalmers, Milwaukee 1, Wis.

BM-44

ALLIS-CHALMERS A-C ALLIS-CHALMERS *POWER* FOR A GROWING WORLD

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Anti-Pollution Forces Gain Washington Victory

● Fish and oyster interests of Washington state won a decisive victory on their long fight against water pollution Oct. 24 when the state's Pollution Control Commission adopted regulations covering the grant of permits for the discharge of pulp and paper mill wastes into the waters of Washington.

Basic element in the revised rules is that which places on each individual application for a permit the burden of proof that the discharge of waste for which permit is sought would "not unduly pollute" the water to the detriment of fish, shellfish, or the organisms on which they subsist.

Each application is to be treated separately and with consideration as to special conditions favoring or condemning it—conditions such as tidal flow, character of the effluent, and damage potential.

Milo Moore, Washington state director of fisheries, and a member of the commission, observed following passage of the regulation: "This really means that within three years all pulp and paper mills must install full recovery systems to treat their effluent, in order that they will not 'unduly pollute' the waters of the state."

That the Pollution Control Commission's action might be attacked in the courts by pulp and paper interests was considered probable by some observers in Olympia.

The five basic points of the order, briefed sharply, are:

1. Burden of proof is put on applicants to show that discharge for which permit is sought "will not unduly pollute" state waters.

2. Applicants must recover solids and remove other deleterious substances within three years of receiving permit.

3. Mills with permits must provide correction or prove they do not "unduly pollute" waters under existing permit, the time limit being three years.

4. Technical staffs of corporations or public bodies concerned may testify at all hearings.

5. Interested persons, parties, corporations or government agencies may intervene in all hearings on applications for permits.

Dogfish Delicacies Featured At Washington Fish Barbecue

● Milo Moore drew 2,000—perhaps as many as 2,500—people to the Washington Department of Fisheries' fourth annual Open House and Fish Barbecue at Seattle October 17; fed 'em dogfish in about 40 ways—and made 'em like it.

He really didn't have to *make* 'em like it. They liked it anyway, and most of 'em probably never knew it was dogfish; for along with the dogfish dishes there were other delicacies by the dozen. Such as? Oh, King crab; Olympia oysters; salmon in 60 ways; halibut in at least as many; sablefish; herring; Pacific oysters, and others.

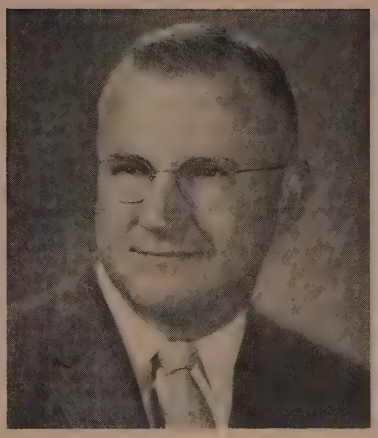
Beside the crowd, which was astonishing in numbers, in interest, in quality, and in its general enthusiasm, perhaps the feature of the whole affair was the dogfish.

Utilization of this predator to keep it in control while profiting from it economically has long been a project for Mr. Moore, Washington state director of fisheries; and at the 1960 barbecue — which, by the way, was timed to introduce National Fish 'n' Seafood Week in the Pacific Northwest — he relied on a newcomer from Norway to carry the doctrine of dogfish utilization.

This was Oddo Igde, who came to Seattle recently from Bergen, Norway, where he specialized in Norwegian fish delicatessen dishes. He served samples of dogfish sausage, patties, pudding and salads. Many of them involved a seaweed gel. Mr. Igde is a specialist in herring also, but the main drive was on dogfish.

Basic to dogfish utilization, he said, was prevention of the tendency of dogfish protein to change chemically with the release of an ammonia odor and flavor. He said he had been able to overcome this fault of dogfish for food by a simple and wholesome marinating process, followed by a series of rinses.

Cooperating with Mr. Moore's Washington Department of Fisheries in providing the remarkable demonstration were: Northwest Fisheries Association; Halibut Fishermen's Wives Association; Pacific Coast Oyster Growers Association; Canned Salmon Institute; Association of Wives of Commercial Fishermen; Olympia Oyster Growers Association; and Puget Sound Gillnetters Auxiliary..



S. Donald Vanek, was announced in October as engineering and sales manager of the Bellingham Shipyards Co., where he will be responsible for developing the company's marine business. Mr. Vanek has had 19 years experience in the marine engineering field, and goes to Bellingham Shipyards from Puget Sound Bridge and Drydock Co., where he was for nine years, first as project manager and latterly as chief engineer in the shipbuilding division.

M. T. Hoy Retires After 37 Years Serving Oregon

After 37 years of continuous affiliation with the Fish Commission of Oregon, Michael (Mike) T. Hoy, its administrative head for 20 years, retired recently. The commission has made provision to obtain his advice from time to time in a consultant capacity.

During his administration the Commission promulgated many of the policies and procedures which have become established practice today, such as the poundage system of recording fish sales. His encyclopedic memory and varied experience in fish matters are widely known, especially pertaining to commercial fisheries law. His administrative years were almost parallel with former Commission Chairman John C. Veatch who served the Commission from 1925 to 1957 through several changes of state administration.

Pete Spadaro, San Francisco, repowered his troller **Baby Albert** with a Ford Tasco four cyl. diesel engine, with 2½-1 Capitol reverse and reduction gears. The engine was purchased from Boicelli & Mercury, Fishermen's Wharf, as was a new Columbian propeller.

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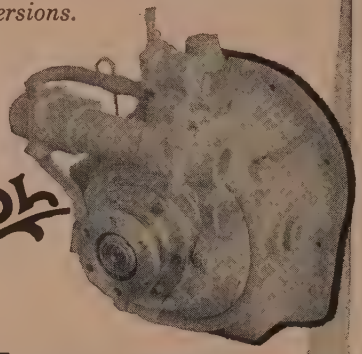

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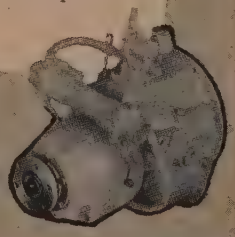

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FOOD FISH MARKETING

Section of PACIFIC FISHERMAN —

News and Views of National Trade in Fish and Shellfish

November 1960

WHAT Will the Consumer Say?

● That's a question which some thoughtful salmon sellers ask themselves as they settle back and wait for spring.

They're thinking about Pinks and Chums, and what Mrs. Smith is going to say and think and do when she sees the price tags on the shelves when the September sales of Pink talls and Chums hit the shelves at their new prices.

Pinks priced out of the Pacific ports at $26 are going to sell at retail from 69¢ to 75¢, depending on the type of outlet. Everyone is hoping that the housewife is going to sweep 'em into her market cart, fooling the faint-hearted, just as she has been doing for several seasons back; but some of those who are hoping that can't get over their questioning doubts.

● Now Reds are something else again. They are selling in a satisfactory manner, or so the trade says with a reasonably straight face.

Fact does remain that they are priced in line with previous years, when they were in good demand; and the reasoning goes that what sold well in 1959 should sell well in 1960, even if there *is* more of it.

From the consumer point of view that's probably true; and the distributive trade knows that other varieties —and particularly Medium Reds, the only close substitute—are scarce, and because of that fact are priced not too far below Reds.

● So with the holidays coming on and the pack just about all sold or on order, the Red salmon specialists at presstime were packing their bags for Ojai; while the Southeast Alaska crowd was trying to talk the Good Wife into a second-run movie instead.

California Imports of Frozen Tuna

Cumulative data in tons for 1960 through October 15, and for other years to the nearest comparable date. Data from U. S. Market News Service

	Albacore	Skipjack	Yellowfin	Unclassified	Total
San Francisco	1,670	260	8,156	417	10,503
San Pedro	10,194	8,168	22,178	125	40,666
San Diego	2,627	747	1,145	17	4,536
Total to October 15	14,491	9,175	31,479	560	55,705
1959	9,957	8,747	43,613	223	62,540
1958	11,379	7,623	38,564	350	57,916

Carnation Fish Products Introduced in Canada

Seafare Packers Ltd. of Canada has recently been formed by Malcolm McCallum and P. A. Todd of McCallum Sales Ltd., and will control all Carnation fish and seafood activities throughout Canada, and will also be packing under the Carnation brand for export markets.

An advertising and sales promotion program for Carnation Fish and Seafood Products started in October in certain sections of Canada. Mr. McCallum reports that introductory offerings have been exceptionally well received.

A variety of items such as canned tuna, crabmeat, smoked oysters, clams, salmon, in addition to a wide variety of frozen items such as halibut, salmon, trout, sole, perch, cod, etc., are being offered under the Carnation trademark, with a strict quality control program.

Tuna Sale No. 7 Includes Albacore

After Japan's Tuna Sale No. 7 had been announced to include only 300,000 cases of Lightmeat, pressure for Albacore caused the allotment to be changed, with the result that the mix became 240,000 Lightmeat and 60,000 cases Albacore.

Shipment was to be made strictly by November 15, with the price $6.80 got the base item, fob.

This sale was for U. S. shipment only, and the quantity brought the grand total of Sales 1 through 7 to 870,000 cases of Albacore and 1,010,000 cases of Lightmeat, total 1,880,000 cases.

Seattle Market

Market prices currently quoted at presstime by Pacific Northwest brokers and cannery sales department, cases of 48 tins, unless otherwise specified, good quality, as reported by the U. S. Bureau of Commercial Fisheries, Market News Service.

Items and Packages	Per Case
Puget Sound	
Sockeye, halves	$ -25
Sockeye, quarters	-15
Alaska	
Red, talls	35 -37
Red, halves	23 -25
Pink, talls	26 -28
Pink, halves	14.50-16
Pink, 4-lbs. (12)	-28
Med. Red, talls	30 -32
Med. Red, halves	18.50-20
Med. Red, quarters	13 -14.00
Chum, summer, tall	23 -24
Chum, summer, halves	13 -14
Chum, fall, 4-lbs. (12)	24 -25.00
Chinook, talls	29 -32
Columbia River	
Blueback, halves	26 -27
Blueback, quarters	14.50-15
Chinook, fancy, halves	26 -27
Chinook, fancy, quarters	14.75-15
Chinook, choice, halves	18.00-20.00
Chinook, choice, quarters	11.50-13.00
Silver, halves	-19.00
Silver, quarters	13.25-13.50
Tuna, Northwest Pack—	
Albacore, fcy., 7 oz.	-12.00
Yellowfin, s/pack, 7 oz.	-10.50
Yellowfin, chunk, 6½ oz.	9.50- 9.85
Tuna, Columbia River Pack	
Albacore, fcy, 7 oz.	14.85-15.25
Albacore, fcy., 3½ oz.	8.85- 9.15
Albacore, chunk, 6½ oz.	10.50-13.25
Albacore, chunk, 3 oz.	6.50- 8
Lightmeat, fcy., 7 oz.	14.25
Lightmeat, fcy., 3½ oz.	8.55
Lightmeat, chunk, 6½ oz.	11.00
Canned Shrimp—	
Northwest: 4½ oz. wet pack	- 7.25
Alaska: Tiny (over 17 per oz.)	- 7.25
Small (10-17 per oz.)	- 8
Medium (6-9 per oz.)	-10
Canned Crab	
Dungeness, 24, 6½ oz.	13
Dungeness, 24, 3½ oz.	- 8.25
King, fcy., 7½ oz.	-32
King, std., 24, 7½ oz.	-16.10

Southern California Receipts

	Albacore	Bluefin	Skipjack	Yellowfin	Bonito, etc.	Total
San Pedro	23,102	4,815	21,710	88,330	136	138,093
San Diego	4,021	332	9,099	11,427	....	24,879
Total 1960 through Oct. 15	27,123	5,147	30,809	99,757	136	162,972
Total 1959	27,714	7,456	61,528	82,021	553	169,272
Total 1958	20,612	15,505	57,940	88,963	2,150	185,170

"Tender Tuna" Stirring Interest Outside Japan

Success of "Tender Tuna", a new canned tuna product manufactured by Nippon Reizo K.K., is attracting attention and stirring interest in Europe and the United States.

Introduced in June, 1960, by "Nichirei", the trade's nickname for Nippon Reizo, the product is said to have achieved remarkable success in the domestic market for which it was intended. It is offered in four styles: curried, with tomato sauce, in oil and in soy sauce.

Samples sent to American and European buyers are said to have earned marked attention and reports that the product is considered to have distinct possibilities in those markets.

To date "Tender Tuna" is packed only in the Nichirei cannery at Yaizu, but the demand is reported so heavy that the company is said to be planning a new plant, designed specially for packing this product at Shimizu, another of Japan's great tuna ports.

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Japan's U. S. Salmon Selling Is Concluded

● All canned salmon selling by Japan to the United States was believed in Tokyo to have been concluded before the end of October. At that time there seemed a probability that some advance might be made in the price of Pinks for sale to the "C" area, which includes certain countries other than United States, Canada and the United Kingdom.

It is significant that *to presstime of this issue the size and composition of the Japanese canned salmon pack of* 1960 *had not been made public.*

The big September sale of salmon to "A" area, U. S. and Canada; and "B" area, U. K., was at these prices, fob. Japan, which are compared with those of 1959:

Species and Size	1960	1959
RED—		
Halves, 96	$42.00	$40.80
Quarters, 96	28.15	27.05
SILVER—		
Halves, 96	32.70	31.40
Quarters, 96	21.10	20.70
PINK—		
Halves, 96	20.80	19.80
Halves, 48	10.50	10.00
Quarters, 96	12.50	12.50
Talls, 48	18.00	17.00
CHUM—		
Halves, 96	18.30	17.30
Quarters, 96	11.50	11.00
Talls, 48	16.50	16.00

Pink sales to the United States are said to have totalled nearly 100,000 cases of various styles. This business was concluded promptly and the Japan Canned Salmon Sales Co. then stated no more Pinks would be available for "A" area, although further sales to the United Kingdom and Australia could be expected.

By the end of September it was reported that the entire quantity of salmon allocated to the first sale had been committed, except for a portion of the Reds offered to the U. K.

Early in October there arose a fervent demand for an increase in the price of canned Pinks. This came principally from the Hokkaido land packers, supported in a lesser degree perhaps by other producers, who were principally interested in increasing the selling price of Red quarters for the U. K.

The new sale's price list was anticipated at presstime with great interest.

Japanese Salmon Export Prices Rise Strongly

Japan Canned Salmon Sales Co. prices on salmon exports to United States, Canada or European countries show sharp advances, $1.30 per full case on Reds and Silvers and $1 up on Pinks and Chums.

New prices for autumn business were:

Type	cans/ case	(New Price) US $/case
Red, #2	96	42.10
Red, #3	96	28.15
Silver, #2	96	32.70
Silver, #3	96	21.10
Pink, #2	96	20.80
Pink, #2	48	10.50
Pink, #3	96	12.50
Pink, #4	48	18.00
Chum, #2	96	18.30
Chum, #3	96	11.50
Chum, #4	48	16.50

It should be noted that numbers indicating can sizes do not correspond with those used in the United States and Canada.

Chicago Inaugurates Fish Judging Program

Chicago held its first fish and seafood judging program in October as a feature of the National Fish Parade and under the sponsorship of the Seafood Club of Chicago, whose president, Arthur Frohman, presided.

Guests at the judging and luncheon included food editors, chain store fish buyers, restauranteurs, dieteticians, press representatives, advertising and publicity executives, government marketing experts, and Chicago fish industry members.

The actual judging was by teams of qualified experts, working to a program devised and supervised by the National Fisheries Institute's Technology Division.

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Brighter Halibut Trade Is Reflected in Pricing

● Halibut sellers found enough of encouragement in their autumn sales figures to nudge their prices a cent higher toward the end of October.

Stocks in freezer have been running well under those of 1959 to even date, and selling has been brisk. Long before the on-coming holidays could detract attention from the fish cabinets, some sizes were beginning to give evidence of being short. These were the big ones, and it was in this grade that the 1960 pack showed the effects of the reduced catches to Westward in 1960.

U. S. Bureau of Commercial Fisheries cold storage holdings figures for September 30 showed halibut in storage as 21,556,000 lbs., as compared with 24,153,000 lbs. on even date a year previous.

Fletches and steaks on hand September 30 were 2,613,000 lbs., against 3,310,000 lbs. in storage September 30, 1959.

● Supply wasn't the only factor in fostering a better feeling in halibut merchandising. Super-market organizations had found halibut an attractive item in the spring of 1959 and, following the cult of continuity, featured it again in the fall. The National Fish 'n' Seafood Week emphasis late in October helped out.

Halibut is a natural for the national organizations, because it is one of those items where consumer confidence and acceptance is nearly national in scope.

● Then there's the export business, which is a real factor in Canada this fall. Some substantial shipments are known to have gone from Canada to the United Kingdom, where the interest has been active enough to produce inquiries to American sellers. There was no clear evidence of U. S. halibut having been exported to Britain up to presstime, but it is plain that the Canadian halibut exported to England won't be available for the American market, which becomes the firmer for the neighbors' foreign orders.

● So all-in-all it's fair enough to say that halibut is looking up; which is a natural condition in a fish whose eyes are both on one side, and that one the top.

Atlantic Tuna Reforms Applied by Japanese

Concrete reform measures in the sale of Atlantic tuna were applied by the Japan Export Frozen Tuna Manufacturers Association, effective October 26, 1960.

This rule provides "if any member wants to ship frozen Yellowfin tuna via an intermediate port during a period specified by the association, such a shipment shall be sold through the Japan Export Frozen Tuna Sales Co., as in the case of Albacore and tuna loins."

Previously there had been a limitation in the number of *voyages* of operating vessels, and in the total tonnage to be shipped from these voyages; but in the matter of sale vessel owners were free to negotiate with trading organizations.

The manufacturers association also at the time of writing had mapped out a plan for bringing back to Japan commercially superfluous Atlantic tuna. Fishing companies having sizable reefer vessels were reported willing to have them utilized for such transport purposes.

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"Local" Albacore Catch Down, but Imports Rise

● Although there was a large decline in landings and deliveries of domestic Albacore on the Columbia River this season, the deficit was more than made up by substantial increases in imports. As result, tuna canneries on the Columbia had somewhat larger supplies of raw material through the first three-quarters of the year.

Delivery figures at Astoria for the current season through September, but not including the limited early October receipts, were 6,357,600 lbs. of locally-caught Albacore, as compared with 14,750,100 lbs. in the corresponding nine months of 1959.

● Imports, on the other hand, were up substantially, reaching 18,592,000 lbs. by September 30, this year, against 8,079,000 lbs. to even date in 1959.

Make-up of the imported tuna shipments was: Albacore, Japan, 12,338,-000 lbs.; Yellowfin, Japan, 5,351,000 lbs.; Yellowfin, Colombia, 94,000 lbs.; Yellowfin, Peru, 182,000 lbs.; Skipjack, Colombia, 256,000 lbs.; Skipjack, Peru, 371,000 lbs.

"Cobb" Finds Shrimp Area Off Bandon, Ore.

● First signs of a good shrimp trawling grounds have been reported in waters offshore of Bandon, Ore., by biologists aboard the U. S. Fish and Wildlife Service's fisheries research vessel *John N. Cobb*, as a result of a cooperative effort with the Oregon Fish Commission. Austin McGill and Dale Hagge, Fish Commission biologists, reported that more than a week of exploration for new shrimp grounds off Coos Bay was not rewarding as the area was too rocky for trawling. Experimental drags off Coos Bay made in areas fished by commercial fishermen revealed only small numbers of shrimp available.

South of Coos Bay soundings by electronic equipment proved the area offshore of Bandon soft and free of rocks, and subsequent trawling produced some fair-sized shrimp at a depth of from 90 to 105 fathoms.

A. T. Pruter of Seattle, field party chief on the vessel and assistant director of exploratory fishing for the Fish and Wildlife Service which is cooperating with the Fish Commission, explained that while experiments thus far are inconclusive as to concentrations of shrimp in sufficient quantities to establish a commercial fishery the Bandon area presented the best grounds for trawling so far.

John N. Cobb and crew, whose skipper is Pete Larsen, later pushed north to the Umpqua area and weather and time permitting, as far north as Newport.

Levis Heads New York Connell Bros. Territory

Arthur D. Levis, vice-president, Connell Bros. Company, Ltd., San Francisco, world-wide canned food exporting house, and subsidiary of Wilbur-Ellis Co., has been appointed administrative head of Connell Bros. Company, Ltd., New York branch, with responsibility for new business development in the eastern United States.

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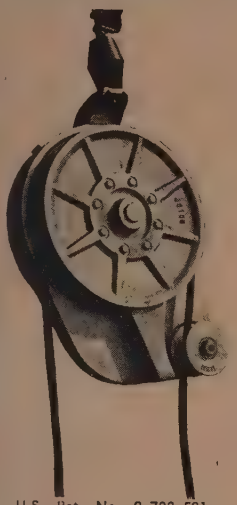

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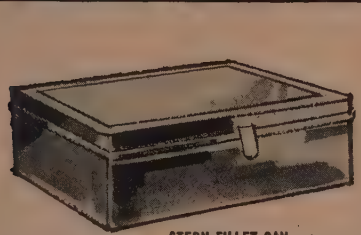

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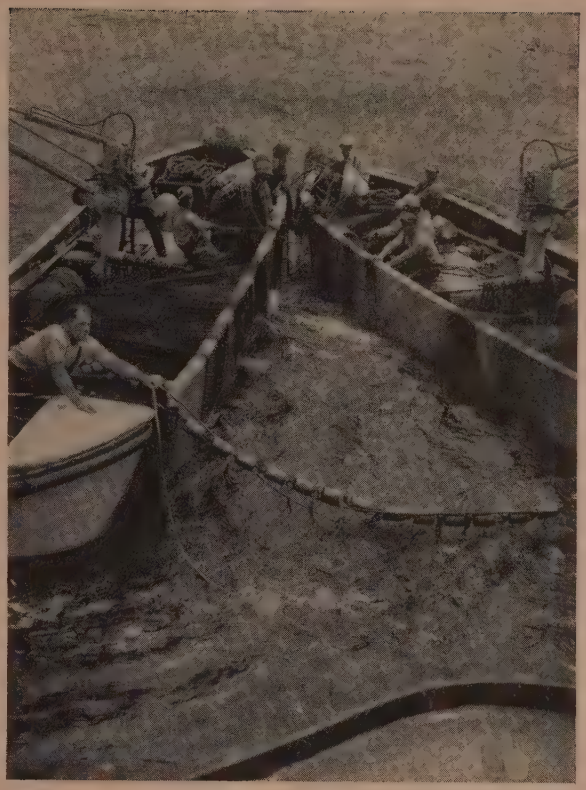

For steady hauls all season these purse seiners rely on Monel shafts

A lay-up of even one day would be costly — as much as 100 tons of Menhaden! That's the kind of haul a pair of purse seine boats has to turn in daily during the five month season. No wonder Fish Products Company of Lewes, Delaware, has selected Monel shafting for their boats — 78 of them!

Monel* alloy shafts have the high strength and toughness to withstand shocks...high hardness to withstand wear...extra stiffness to minimize whipping. Monel resists attack by salt, brackish and polluted waters. And in metal hull boats—such as these purse seiners—Monel can be used without fear of galvanic corrosion.

As Fish Products already knows, and as you can discover for yourself, Monel nickel-copper alloy shafts keep a workboat working, season after season. That same dependability goes for Monel fuel and water tanks, and other Monel accessories, fittings and fastenings that are subject to hard use and corrosive attack. *Registered trademark

HUNTINGTON ALLOY PRODUCTS DIVISION
The International Nickel Company Inc.
Huntington 17, West Virginia

MONEL
THE SEAGOIN'* METAL

Gail, new type, small fast abalone boat, built by Morro Bay Boat Works, and powered with Evinrude 75-hp. outboard engine.

Outboard Drives Modern Plywood Abalone Boat

Changes have come to California's fishing industry. The old time cumbersome heavy deep sea diving gear is giving way to skin diving suits, and the boats are getting smaller and faster.

As evidence of this trend, take the *Gail,* just finished by Jim Beck, Morro Bay Boat Works, Morro Bay, Calif., for Curtis Beckvold, of Morro Bay.

Gail is 18′ long with a beam of 7′6″. She was designed by Ed Monk, Seattle naval architect, and is built of plywood and glass-and-plastic covered. Her power plant is a 75-hp. Evinrude outboard engine. She carries a 50-gal. fibreglass gas tank, and can carry 50-doz. abalone.

It takes Carl about 20 minutes to get out to the abalone beds where he is diving now, but the beauty of this boat is that when he wants to go further afield all he has to do is put the boat on a trailer, and take it wherever he wants.

American on Norway's Tuna Research Cruise

A U. S. Bureau of Commercial Fisheries biologist from the San Diego, Calif., Biological Laboratory staff is an observer aboard the Norwegian research vessel *Johan Hjort* making a two-months cruise to African waters. Ten Norwegian commercial fishing vessels accompany the research vessel.

STATEMENT REQUIRED BY THE ACT OF AUGUST 24, 1912, AS AMENDED BY THE ACTS OF MARCH 3, 1933, AND JULY 2, 1946 (Title 39, United States Code, Section 233) SHOWING THE OWNERSHIP, MANAGEMENT, AND CIRCULATION of

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Miller Freeman, Jr. Publisher

Sworn to and subscribed before me this 1st day of October, 1960.

Barbara M. Hampson,
Notary of the Public
San Francisco, California
(My commission expires February 18, 1962)

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LINES and LEADERS

Cummins Advances Boll And Franck in Sales

E. Don Tull, president of Cummins Engine Company, Inc., recently announced the promotion of C. R. Boll and R. W. Franck to top sales positions.

Mr. Boll was appointed to the new position of Executive Vice President—Marketing; Mr. Franck was named Vice President—Sales.

Mr. Boll joined the company in 1941 and has recently served as Vice President—Sales, he also held positions as Manager—Engine Sales and General Sales Manager.

Mr. Franck joined the company in 1948 and served as Manager—Warranty Administration, Manager—Sales Development and, prior to his recent advancement, Director—Field Sales.

C. J. Hendry Co. Moves Into New Headquarters

C. J. Hendry Co., one of the world's largest distributors of marine, aircraft, and industrial equipment, will vacate three of its San Francisco buildings on October the 14th and move into a five-story, 63,000 square-foot building at 139 Townsend Street.

Hendry will continue operation of its store serving the yachting and commercial fishing trade at Jefferson and Hyde, Fisherman's Wharf. Branches at San Pedro and San Diego will also continue unchanged.

Hendry and its predecessor companies date back to 1852. Old-timers will remember such names as Wright, Browne & Co., Bruce Browne Co., Western Repair and Supply Co., Sellers & Co., Sellers & Madison, G. M. Josslyn Co., Johnson & Joseph Co., Coffin & Hendry, John L. Prior, and Louis Weule. A Maine sea captain, Charles J. Hendry gave the present company its name in the 1800's.

Hendry at one time sold only heavy marine equipment, but now also distributes commercial fishing gear, pleasure boat engines and general equipment, aircraft supplies, industrial supplies, plastic materials, and lifesaving units such as Elliot Inflatable Liferafts. Hendry also manufactures various products made of fiber rope, wire rope, canvas, and flotation materials.

Chrysler To Sell Perkins Diesels in U. S. and Canada

Chrysler Corporation, Marine and Industrial Engine Division, has completed an agreement with F. Perkins Ltd. of Peterborough, England, to market Perkins diesel engines in the United States and Canada, according to an announcement by W. L. Pringle, president of the Chrysler division.

Mr. Pringle said that the arrangement will provide a complementary line of marine, industrial and agricultural diesel engines to augment the extensive gasoline line now produced by Chrysler M. & I.

Chrysler will offer the complete line of Perkins high-speed diesels — three, four and six cylinder units ranging from 25 to 130 h.p. All Perkins engines are liquid cooled and operate at speeds up to 4000 r.p.m.

"Chevron" All-Mixed Outboard Fuel Offered by Standard

A new pre-mixed outboard motor fuel which eliminates the old time-consuming and bothersome chore of measuring and mixing oil and gasoline from separate containers has now been announced by the Standard Oil Company of California.

The new ready-to-use fuel is a blend of Chevron Gasoline and new RPM Outboard Motor Oil, and is especially tailored for all two-cycle engines. Fueling outboards, power mowers, motor scooters, chainsaws and other 2-cycle equipment now becomes a one-step operation and simplifies storage and fuel handling problems.

The new product is now being made available to all Standard of California Marine Stations, as Chevron Outboard Motor Fuel.

Company spokesmen report the new fuel incorporates all the benefits offered any user of new RPM Outboard Motor Oil. It maintains a perfect gas-oil mixture — will not penetrate, cleans rings, pistons, exhaust ports in old engines and keeps new motors in like-new condition, doubles spark plug life and removes damaging water condensate from fuel systems.

Gordon Blahnik, well-known salesman of diesel marine engines, has joined Shepherd Machinery Co. of Whittier, Calif., as new general manager of an expanded Shepherd Marine Division. Mr. Blahnik who has been selling diesel marine engines for 15 years in Southern California will head sales of the new Caterpillar "compact" diesel engines, a new line recently introduced.

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ADVERTISING INDEX

Allis-Chalmers Mfg. Co. 34
Anaconda American Brass Co. ... 2
American Steel Wire Division of United States Steel ..... Inside back cover
B. C. Glass Hulls Ltd. 25
Bendix-Pacific Marine 14
Bryant's Marina 24, 28
Burmeister & Wain American Corporation 22
Capitol Gears, Inc. 36
Carruthers, E. H. Co. 40
Caterpillar Tractor Co. 3
Classified Advertising 28
Consolidated Net & Twine Co. .. 26
duPont de Nemours & Co., Inc., E. I. . Inside front cover
Evinrude Motors 43
Fellows & Stewart 42
Fremont Electric Co. 24
Frohman & Sons, L. H. 38
Heminway & Bartlett Mfg. Co. .. 29
Hendry Co., C. J. 34
Hiller, Paul W. 28
International Nickel Co., Inc. ... 41
International Paint Co. (California) Inc. 36
Kelley-Clarke Co. 39
Marine Construction & Design Co. 41
Michigan Wheel Co. 44
Mobil Oil Co. 30
Moffitt, Inc., Lucian Q. 2
Murphy Diesel Co. 16
Mustad & Son, O. 29
N C Marine 28
New England Fish Co. 39
Nordby Supply Co. 24
Northwest Instrument Co., Inc... 26
Northwest Marine Industries 24
Outboard Marine International S.A. III
Outboard Marine Corporation ... 43
Pacific Fishing & Trading Co. .. 28
Pacific Telephone & Telegraph Co. 29
Pacific Towboat & Salvage Co... 28
Pan-Alaska Fisheries, Inc. 18
Peelers Company, The 32
Porto Rico Iron Works, Inc. 33
St. Regis Paper Co., Container Division 4
Sanden Company, Ltd. 43
San Juan Fishing & Packing Co.. 40
Seattle Boiler Works 42
Shell Oil Co. ..... Back cover
Skallerud & Sons 28
Snow-Nabstedt Gear Corporation 27
Standard Oil Co. 21
Starr Net Co., A. M. 26
Stern Can Co. 41
Stix, Inc., Robert L. 38
Tacoma Boatbuilding Co. 28
Twin Disc Clutch Co. 14
United States Steel Corporation ..... Inside back cover
Vilter Manufacturing Co. 32
Vita Food Products, Inc. 42
Wendt, Ivar 39

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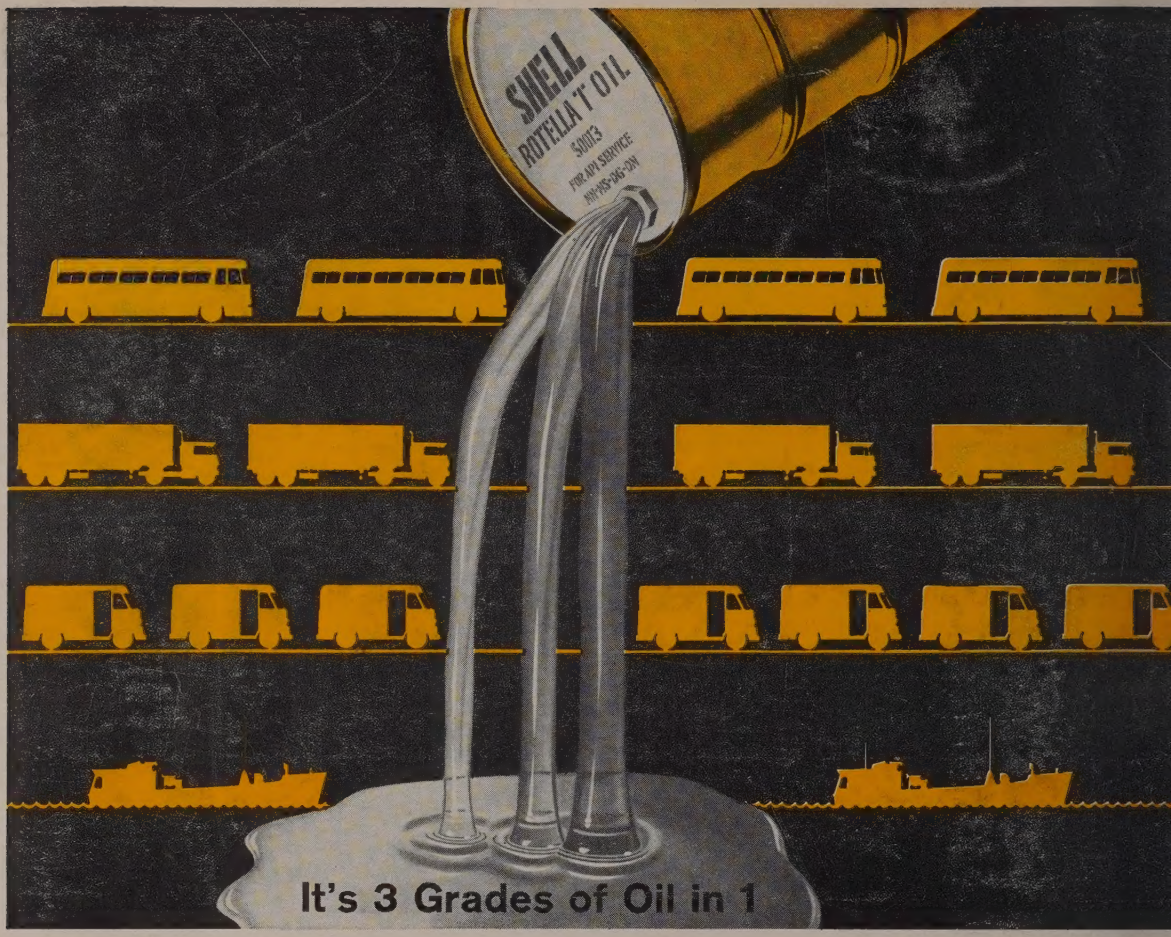

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